



ASIATICK RESEARCHES

OR

TRANSACTIONS

OF THE

SOCIETY,

INSTITUTED IN BENGAL,

FOR ENQUIRING INTO THE

HISTORY AND ANTIQUITIES, THE ARTS

SCIENCES, AND LITERATURE

OF

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TRANSACTIONS
OF THE
ASIATICK SOCIETY.



I.

Remarks on the State of AGRICULTURE, in the District of DINA'PUR.

BY W. CAREY.

THE soil of the district of *Din'pur* is considerably diversified. In the southern part the ground rises in gentle elevations, which run from north to south, and are divided from each other by vallies running between them: the whole resembling large waves, or rather the appearance of the sea when there is a great swell. The width of each valley is two or three miles, and that of the elevations about the same. Each valley is watered with one or two little streams, as the *Tanguam*, the *Purnabhavá*, and several others, which empty themselves either into the *Mahánandá* or the *Ganges*. These small rivers swell in the rainy season to large lakes, fifty or sixty miles in length, and two or three in breadth, overflowing all the low lands, which are dry in the cold sea-

son. These vallies, at the distance of fifty miles from the *Ganges*, are scarcely higher than the surface of its waters; when therefore that river is swoln by the periodical rains, the waters of the vallies are not only prevented from running off, but are so much increased as to be navigable for vessels of very considerable burden.

THE soil of the elevated portions of land is in general a stiff clay, in some places black, and somewhat porous, in others white and tenacious. The soil of ~~some~~ of the vallies resembles that of the elevated parts, and ~~that~~ of others is rich and loamy, with a substratum, at a greater or lesser depth, of the same kind of clay which forms the higher grounds. These low lands are for the most part covered with long grass of different sorts, and afford pasture to a great number of buffaloes and to large herds of other cattle.

THE northern parts of the district are more level than the southern ones, have a loamy soil, and are well cultivated. Some tracts of clay land are, however, to be found, and it is probable that clay is the substratum of the whole.

THE higher lands in the southern part of the district are principally inhabited by *Musulmans*, and the vallies by *Hindus*. The mode of cultivation and the productions of the elevated parts, differ widely from those of the vallies, so that those who have been accustomed to one of these sorts of land only, can seldom manage the other to advantage.

ON the higher clay lands very little besides rice is produced, and, except in very small spots which are well manured, only one crop in

a year. The loamy vallies which do not lie so low as to endanger the inundating of the crop, produce, not only rice, but also a good crop of mustard, or pulse in the cold season. The land which produces two crops in a year is called *Palli*, and is usually let at a rupee and half per Bighá. That which produces only one crop is called *Khár*, and is usually let at twelve annas per Bighá.

THE people of the district of *Dinájpur* are, in general, extremely poor, and their farming utensils are therefore proportionably simple and wretched. A plough drawn by two bullocks, serves to prepare the soil. The plough is composed of four pieces; viz: the *Lánga* or body of the plough, which is a piece of wood forming two sides of an obtuse angled triangle, the other side being wanting, with a hole near the obtuse angle to admit a staff of wood or bamboo about six feet long, called the *Is*. This staff may be called the beam of the plough, and is the part to which the bullocks are yoked, going between them and resting on the yoke by which they are coupled. The ploughshare (*Phál*) is a flat plate of iron, nearly of a lozenge shape, which is fastened to the under part of the *Lánga*, to prevent its being worn by the soil. The handle is a piece of wood, or bamboo, about two feet long, fastened to the upper extremity of the *Lánga*, and furnished, at a small distance from its upper end, with a pin about six inches long, called the *Mut*, to assist the hand in guiding the plough.

THE oxen draw double, or side by side, being coupled together with the *Juál*, or yoke, which passes over the necks of both of them at once. The lower edge, which lies on the necks of the cattle, is straight.

The upper edge has two elevations, one over the neck of each ox, but is cut down at the middle and at each end, so as to remain about two inches deep. Four bamboo pins are passed through the yoke, one at each end, and two in the middle, which descending on each side the animal's neck, are connected by a cord under its throat. The beam of the plough rests on the middle of the yoke and is fastened to it by a cord.

ONLY one person attends a plough, holding the handle in one hand, and occasionally pulling the tails of the oxen with the other, to guide them, or striking them with a stick to quicken their pace. A pair of oxen may be purchased for six or eight rupees, a plough for five annas, and a yoke for four. An instrument called *Maī* is drawn over the field after it has been sufficiently ploughed. This may be called the harrow of the *Hindus*. It is made of bamboo, in the form of a ladder, and is four or five feet in length. A cord, fastened to the centre of this rude instrument, is connected with the centre of the yoke, and the driver stands on the harrow, assisting its operation by his weight, and guiding the cattle with his hands. Land pulverized and laid smooth with the *Maī* retains its moisture, and is fit to receive seed in dry weather, several days longer than it would be if this was neglected. The *Hindus* call the operation, when performed for that purpose, *Ras-bāndhan*, or the confining of the moisture.

IN dry seasons it is often necessary to water the fields. For this purpose an instrument called a *Jānt* is used. The *Jānt* is a trough of light wood, from twelve to sixteen feet long, somewhat curved to admit a greater depth in the middle, the bottom is five or six inches wide, the

height of the sides in the middle part is six or eight inches, gradually decreasing towards the ends, one of which is stopped with a square board to prevent the water from running back and being lost. When this instrument is used, it is slung to three bamboos placed erect and crossing each other in the centre; a long and heavy bamboo, loaded at the further end with a large ball of earth, is then fastened to the end which is to be plunged into the water, and thrown over the three erect bamboos, resting on the top of them. A person standing on a stage, even with, or somewhat below the surface of the water of a pond, river &c. then plunges the end of the Jánt into the water, with his foot, by which means it is filled. The weight at the end of the long bamboo assists him in raising it out of the water, and throwing its contents into a small reservoir, or pit, from which it is conveyed into the fields, by channels cut for that purpose. Two feet, or two and a half, is the height to which water can be thrown with effect by this machine; when the height is greater, two, three or more Jánts are used, and in that case the water is thrown into small reservoirs or pits, at a proper height above each other, and sufficiently deep to admit the next Jánt to be plunged deep enough to fill it. Water is by this means sometimes conveyed to the distance of a mile or more on every side of a large tank or reservoir of water.* I have seen fifty or sixty Jánts at one

* Qu. Is not this the watering with the foot mentioned in Scripture, Deut. xi. ver. 10. and may there not be an allusion to the facility with which this water is directed at the will of the husbandman, in Prov. xxi. ver. 1?

time, in a large receptacle of water called Mahípál-dighí, about six coss from *Dindjpur*.

To remove earth from one place to another, a yoke of bamboo is furnished with two appendages, called Bhárua, somewhat resembling a coarse sieve, the outside composed of split bamboos wattled or twisted over each other, and the middle part of twine, woven somewhat like the bottom of a sieve. These vessels are about a foot and half in diameter; when loaded with earth, or any other substance, they are carried with the yoke. The yoke lies across one shoulder, one weight hanging before and the other behind, and is occasionally shifted from one shoulder to the other.

THE Kodáli, or digging-hoe, is, in this district, set much more towards the earth than in the southern parts of *Bengal*, forming an angle of about sixty degrees with the handle, whereas about *Calcutta* the angle is not more than thirty degrees. This instrument is used to dig the earth, or to grub up roots, and destroy the coarse grass, when land is to be first broken up. The Kodáli is a very useful instrument, answering the purpose of both spade and hoe.

THE last instrument of husbandry which I shall mention is the Kastyá or *Indian* sickle. The blade is curved, and the edge toothed like a sickle, but it is much smaller and more rude than the *European* one. The length of the blade is about eight or ten inches, and its greatest width one and a half. It is fixed in a rude handle; and is used to cut corn, grass, or even brushwood upon occasion, being to the

Hindu a very useful instrument, although a *European* labourer would scarcely pick one of them up, if he saw it lie in the road!

RICE is the staple production of the district. Four kinds (including several varieties) are principally cultivated; viz. the Bhadui, so called from its ripening in the month Bhádar, the Hemat so denominated from its ripening in the cold season, the Buná, and Bohara.

THE first of these is chiefly, though not exclusively, cultivated on the lower, and loamy lands; on these soils it is constantly sown by broad-cast, in March, April or May, and the quantity sown depends upon the quantity of rain which falls in those months. The season of cultivation is sometimes extended near a month longer than it would otherwise be, by transplanting the rice, while young, into the fields, or the more elevated lands. When it is sown early on the higher lands, a second crop is sometimes produced upon the same spot; but, that which is sown late in the season, ripening proportionably late, so much interferes with the planting of the Hemat rice, that the latter crop is often scarcely worth the gathering.

THIS rice, when sown on the lower and loamy soils, requires weeding. A large quantity of weeds, particularly *panicum ciliare*, often springs up among it: these weeds, if not extirpated, infallibly ruin the crop. It is also necessary to open the soil, after a heavy shower, by drawing a large drag over it; but no other attention is requisite, till the harvest, when it is cut and housed in the usual way.

THE Hemat rice is usually cultivated on the higher and strong lands, a stiff soil being better calculated to retain the water after the end of

~~the periodical rains.~~ This rice is usually sown at the end of May, or the beginning of June, in small beds, as thick as it can possibly grow. The plants come up in three or four days after the seed is sown, till which time the ground is kept barely moist: after the plants appear it should be kept quite moist, but not flooded. As soon as the rains commence and the earth is well watered, this rice is planted out in beds, (or compartments) each of which is surrounded with a balk, or border, about ten inches high, and a foot wide, to prevent the water from running off.

When a field is first formed, these mounds or borders are thrown up with the Kodáli. The earth is then repeatedly ploughed, till it is completely mixed with the water, and reduced to a soft mud. Five, six, and sometimes eight ploughings are necessary, to destroy the weeds and completely dissolve the clods, after which it is smoothed by drawing the Mái over it, till the surface is so level that the water stands at an equal height in every part. When the field is thus prepared, the young plants are transplanted from the seed-bed by the hand; eight or ten of them being usually planted in one hole. These holes, which are about nine inches asunder, are made by forcing the hand with the young plant into the mud; the plants are left there in an erect position, after which the admission of water settles the roots. When the whole spot is planted, water is admitted from a neighbouring compartment, or from a ditch, a trench or some other reservoir, and if possible constantly kept at the height of at least three (or four) inches. If there be too much water in the field, it is allowed to run off, by cutting a passage for it through the border, and when a sufficient quantity is run

off, the rest is retained, by shutting the passage with a clod of loess earth. This crop requires no weeding, or at most but a very trifling one, the water being sufficient to destroy the noxious weeds. If the season be very dry, the field must be supplied with water from some neighbouring pond or reservoir, as the only means of preserving the crop: attention to this is peculiarly necessary while the plants are young, for if the earth be permitted to grow hard, the plants seldom thrive afterwards; when they have acquired a size sufficient to overshadow the ground, the moisture is retained for a longer time, and the crop suffers less, but water is absolutely necessary to the perfection of a crop of rice. In November this crop begins to ripen, and the harvest is usually finished by the end of December. As there is little fear of rain at this season, the crop is housed and stacked, without any loss or difficulty.

THE Buná rice is usually sown in April or May, in low lands, where a flood of several feet deep may be expected; if the floods come suddenly while the plants are young, the water rises above them and the crop is lost; but if the plants are strong and the water increases gradually, the rice will grow as fast as the water rises. This crop will answer tolerably well, if the water be four, six, or even eight feet in depth, the stalks sometimes acquiring the length of ten or even fifteen feet; but as they are weak and lie in an oblique position, they do not easily rise above eight feet of water. This crop ripens in November. The upper part of the plants on one man's land being drawn by a gentle stream, or by some other cause, often fall on his neighbour's field and occasion quarrels at the time of reaping.

THE Bohara, rice is sown in October or November like the Hemat, and about January planted at the bottoms of tanks, or pits, or on very low ground where it can be supplied with water. It is treated in every respect like the Hemat, and ripens in April or May. This is an excellent sort of rice, but the quantity cultivated is necessarily small.

THE next article of cultivation is indigo, a plant for which many parts of this district are improper, as it will not grow on the white clay lands called Balka, is sparingly produced on the black or red clays, and as most of the soft and loamy parts lie so low as to be subject to sudden inundations, which infallibly destroy the crop.

THE proper season for sowing indigo is in April and May. Some have sown it at the end of September or the beginning of October, and others in any month from October to March. That sown in September, or October, or even in November, will frequently produce a crop, if the land be not low and damp. It is better to sow, on low damp soils, in December, January and February, when the season will soon become warm enough to obviate the danger arising from the soil. Some have sown a winter crop with this indigo, which as it affords the young plants a shelter in the cold season, may be esteemed a good method. Mustard, ripening very early, is the most improper for this purpose, because it leaves the indigo exposed at the very season in which it requires shelter. The young plants, at this season of the year, are often greatly injured by the treading of cattle; and the crop is seldom so good as that which is sown in the proper season. If the season be favorable, and the whole crop be sown in March, April or

May, (for which repeated rain is absolutely necessary,) and be weeded before the periodical rains set in, an abundant crop may be expected. Indigo sown in June seldom repays the labour of the husbandman, the rains, then setting in, usually injure the plant while young, or produce weeds in such abundance, that it is choaked by them, and generally perishes.

THE present method of cultivating indigo is subject to many inconveniencies, and therefore liable to many objections; but as the whole business is conducted by giving advances of money to the Ryots, previously to their sowing the seed, and by receiving the produce at a certain number of bundles of a given measure for a rupee, and as many of them scarcely ever intend to fulfil their engagements, the application of a remedy would be difficult, especially as the devising of it must depend upon experiments, to the making of which the poverty and prejudices of the cultivators would prove an almost invincible obstacle.

CORCHORUS olitorius, *Corchorus capsularis*, and, *Crotalaria juncea* are sown in April, May, or June. The fibres of these plants are much used for cordage, and for making sackcloth, and are very valuable for these purposes. The *Æschynomene cannabina*, is sometimes though but seldom sown in this district, but is more abundantly cultivated in the southern parts of Bengal. The fibre of this plant is less valuable than that of the *Corchorus*. There are two varieties of the *Crotalaria juncea*; one, sown at this season, often grows ten or twelve feet high; the other variety is sown in October, and rises to the height of four or five feet.

AFTER the earth is properly ploughed, cleansed, and pulverized, the seeds of these plants are sown very thickly. The natives say that they should be sown so close together that a serpent cannot creep between them. This prevents the plants from throwing out branches, which would be highly injurious to the fibre.

As the growth of these plants is extremely rapid, the crops suffer but little from weeds; if the weeds however should be numerous, they must be extirpated by the hand.

WHEN the Sana* has done flowering, and the seed vessels have nearly attained their full size, sometime before the seeds ripen, it is cut down, and tied in small bundles, each containing ten or a dozen plants. The bundles are then set upright in water (about a foot or a foot and half of the lower part of the stalk being immersed) and continue in that situation one day; by this means the upper, and comparatively tender, part of the stalk is somewhat dried. This occasions a greater similarity in the quality of the fibre taken from different parts of the same plant.

AFTER the Sana has thus stood erect for one day, it is steeped in a pond, or some other receptacle of water, to promote the separation of the fibre from the stalk. This process is as follows: a number of the small bundles abovementioned are laid one upon another, so as to form a heap five or six feet wide, on each side of which three or four stakes are previously set, to prevent its falling down. A quantity of cow-dung is then spread over the heap, about two or three inches in

* *Crotalaria juncea*.

thickness; upon this a layer of straw of about a foot and half, and over the whole a quantity of earth sufficient to sink the heap till the upper part is five or six inches below the surface of the water. In two days and a half, or three days at farthest, the putrid fermentation is carried to a sufficient extent.

The Sana is then taken out, and the fibre stripped from the stalk in the following manner. A man standing up to his knees in the water, takes a few of the stalks, and, having broken them about a foot from the lower end, holds them with the large ends from him, and strikes them on the surface of the water, till the broken pieces are separated, and fall off. Then turning them, he takes hold of the fibres which are freed from the broken pieces, and beats the small ends, in the same manner, on the water, till the fibre is entirely separated from the stalks; a few strokes are sufficient, and by a few more it is cleansed from any mucus, or fragments of stalks, which may have adhered to it. It is then dried and packed up for the market.

THE chief thing to be attended to in this process, is the proper regulation of the putrid fermentation; if this be not carried to a sufficient extent, the fibre will not separate, and if carried too far, the quality is injured. The most experienced natives account two days and a half a proper medium. The fermentation is doubtless quickened or retarded by the state of the weather, but the difference occasioned thereby is so small, that the *Bengal* farmers entirely disregard it.

THE *Crotalaria*, cultivated in the neighbourhood of *Calcutta*, and probably that cultivated in all the southern parts of *Bengal*, is account-

ed much inferior to that cultivated in the northern parts of the country. The natives attribute this to the difference of soil. This may have some effect, but it is probable that the variety cultivated in the south, is inferior to that cultivated in the north; as, even there, the large variety is preferred to the smaller one.

PHASEOLUS Mungo is usually sown in small fields about the beginning of June, and generally produces a good crop; it will thrive only on high and good land. *Phaseolus radiatus* is sown in July and August, on land where another crop has failed, and, not unfrequently, on old sward, or on land which could not be regularly cultivated. The seed is scattered over the land, often without any ploughing at all, and at most the plough is only drawn over the surface so as to make a few slight scratches. This crop ripens in October. It is obvious that much produce is not to be expected from such a mode of culture. The crops are indeed light, but are often sufficient to pay the rent of the land. A more rational method of cultivation would doubtless be far more productive.

THE low and loamy soils, after having produced a crop of early rice, are usually sown with the seeds of some other plant, in October or November. The mode of culture for all the cold season crops is nearly alike. The natives seldom begin to sow till about the full moon in October, supposing that the soil possesses a pernicious quality, which burns up the young plants, till the cold season is well set in. Indeed, before that time, the quantity of moisture in the soil is too great, and the heat of the season unfriendly to these productions; so that though the

plants will come up, they are yellow and sickly, and either soon perish, or continue small, stunted, and unproductive.

MUSTARD seed is sown in great quantities at this season. Three kinds are usually cultivated; viz: Surshapa,* *vu/g.* Sursha, Raya,† and Sheta Sursha.‡ The first is the most esteemed, though the other two kinds are as productive, and perhaps more so. The *Sinapis dichotoma* rises about two or three feet in height, flowers in the latter end of November, or the beginning of December, and is usually ripe in January. *S. ramosa* grows sometimes five or six feet high. It flowers in the end of December, or in January, and ripens in February. *S. glauca* grows two or three feet high, and ripens in February. This kind, having a strong and disagreeable smell, is less valued than the other sorts. When the crops of Mustard are ripe, the plants are carefully pulled up by the hand, and carried to a place in the field, smoothed and prepared for the purpose, where it is soon after thrashed and winnowed.

FLAX,§ though abundantly cultivated in the central parts of Bengal, for its use in making oil, is but little cultivated in this district. The natives know nothing of the use of its fibre to make thread. The oilmen usually mix the linseed with a quantity of mustard seed, to promote the expression of the oil. This so injures its quality, that Indian linseed oil is unfit for painting, or the other useful purposes to which it is applied in Europe.

* *Sinapis dichotoma.*

† *S. ramosa.*

‡ *S. glauca.*

§ *Linum usitatissimum.*

MANY parts of this district are very proper for the cultivation of wheat and barley, notwithstanding which, very little of either is sown. The kind of wheat found in these parts is bad, the flour produced therefrom is of a very dark colour, and consequently finds no market among *Europeans*. The native merchants on this account make no advances for it, and this want of a market is the reason alleged why it is not cultivated to a greater extent. For the purpose of making a trial I sowed *Patna* wheat, on a large quantity of land, in the year 1798; the flour produced from which was of a very good quality.

SEVERAL kinds of pulse are sown at the commencement of the cold season, the principal of which are Kefari, * Mashuri, † and Būt. ‡ The seeds of the first of these kinds are sometimes scattered among the stubble of the *Buna* rice, and produce a good crop without further trouble, but the most usual way is to sow it on land previously well ploughed and cleaned, in the same manner as for the other cold season crops.

TOBACCO is cultivated to a considerable extent on low and loamy land. The seeds are sown on a small plat or seed bed, soon after the conclusion of the rains, where they are shaded, and watered, if necessary, till they are large enough to be transplanted into the field. The land for tobacco must be well ploughed, and manured, after which the young plants are transplanted in rows, much in the manner that cabbages are planted in *England*, and at the same distance. The young plants require continual attention, the ground between them must be

* *Lathyrus sativa.*

† *Ervum lens.*

‡ *Cicer arictinum.*

repeatedly loosened, and the earth drawn to the roots, till they have acquired a sufficient growth : they are then cut and dried for use.

The egg plant,* and several species of capsicum, are planted at the same time, and in exactly the same manner, as tobacco. The fruit of the egg plant is much used all over *India*, as an article of food, as is the capsicum to give a pungent taste to several *Indian* dishes. I have not observed that these plants are planted in this district at any time except the commencement of the cold season, and there is reason to suppose that they would not succeed if they were; though in the southern parts of *Bengal*, they prosper very well when planted at the commencement of the rainy season. Several other plants are cultivated as articles of food, some to a greater and others to a less extent. The cucurbitaceous plants are often sown in the fields, and the advantage of cultivating them is considerable. The sorts most cultivated are cucumbers, of two sorts, the one sown in April and yielding fruit through the rainy season, and the other sown from November to February, and yielding fruit till the rainy season sets in. Karaila,† Terbúz,‡ Dúdh Kushi,§ Jhinga,§ Taroí,¶ Kankrol,** Láú,†† Kaddú‡‡ and the Konhra, or Pumpkin,§§ The three last of these are suffered to run over the houses, and sometimes on a bamboo stage,

* *Solanum Melongena*.

† *Momordica carantia*.

§ *Cucumis pentangulus*.

†† *Cucurbita lagenaria*.

‡ *Cucurbita citrullus*.

¶ *Cucumis acutangulus*.

‡‡ *Cucurbita alba*.

§ *Trichosanthes anguina*.

** *Momordica mixta*.

§§ *Cucurbita pepo*.

and produce fruit sufficient for the expenditure of the cultivator, besides furnishing a large quantity for the markets.

THE sweet potatoe* is planted at different seasons in different parts of Bengal, but in this district it is planted at the beginning of October. The ground is previously ploughed to as great a depth as possible, and then cuttings, taken from a small spot reserved for that purpose, are planted; these cuttings soon take root, and afterwards require no further care, till the roots are fit to be taken up, which begins to be the case at the end of December, and continues till May, during which time the produce is dug up and carried to market as it suits the convenience of the cultivator. Another variety, of a white colour, which has very little sweetness, and a small species of yam,† the root of which is about the size of a goose's egg, are cultivated in the more northern parts of the district. The cuttings of the plants of the *convolvulus*, and the small roots of the yam, are planted in April or May, and the produce brought to market in October or November.

THREE varieties of the *Arum esculentum*, (Cachú of the Hindus,) are usually planted in March or April. The cultivation of these roots, occupies a considerable portion of the soil, and the produce is as important as potatoes to the people of England. The offsets from the root are planted in rows, about a foot and half or two feet asunder, and, as the plant increases in size, are earthed up as potatoes are in Europe. The periodical rains being ended, the leaves die away; after

* *Convolvulus batatus*.

† *Dioscorea*.

which, from November to March, the roots are taken up, and carried to market, as suits the convenience of the cultivator. These roots abound with a farinaceous substance, or rather with a viscous, starchy substance, and are esteemed very nutritive. The Máu Cachú,* and the Ol,† are cultivated in small spots. The root of the first of these is often two or three feet long, and nine inches or a foot in diameter. It is necessary to lay this root to dry for two months or more, otherwise it is too acrid to be eaten; after this it is very wholesome, though not very palatable. As all the sorts of Cachú will keep for almost any length of time, it might be worth attention as an article of provision for sea voyages.

In shady situations, where the soil is rich and loamy, ginger and turmeric flourish. The offsets are planted at the same time with, and the whole culture is exactly the same as that observed for the arum. The leaves die off like those of arum, soon after the rains, and the roots are fit to be taken up in January. The turmeric is very deficient in colour, and the ginger less pungent, if taken up too soon. The farmers therefore let it remain in the ground till the leaves are entirely dried up. Ginger is usually sold green, and only a small proportion dried, for foreign market or home consumption. After the roots of the turmeric have been well cleansed and picked, they are boiled over a fire made with the decayed leaves of the plant, (the natives supposing such a fire to have a peculiar kind of virtue,) after which they are well dried in the sun, and reduced to powder by the Pedal, or by the

† Arum macrorhizon.

* A. Campanulatum.

wooden mortar and pestle. In this state they are usually carried to market. The roots are sold likewise before they are pulverized.

On moderately high spots, where the soil is good, the sugar-cane is planted in February and March. The spot designed for sugar-canes is usually surrounded with a ditch, the earth dug from which is heaped up round the field, in the manner of a wall, and serves to defend it from cattle. After the spot has been well ploughed, or dug up with the Kodáli, cuttings of ripe canes, consisting of about three joints, are planted somewhat slanting, in rows, about two feet, or at most three feet distance, and about a foot asunder in the rows. The fields must be often watered and cleansed from weeds. When the canes are about four feet high, they are tied in bunches, about three or four stalks forming a bunch: this permits the air to circulate among them and facilitates their ripening. The canes, when ripe, are cut, and either carried to the mill or to the market.

THE cultivation of the plantain is a profitable branch of husbandry, requiring but little labour, and making a certain return. Spots near to the habitation are chosen for this purpose, to guard against the depredations of thieves. The young plants or suckers are taken from old plantations, and planted at about six or eight feet distance, each way. They may be planted at any time of the year, but May or October is usually chosen. The root is all cut off previously to planting, except a small part with a few fibres. The ground is ploughed, either before or after planting, as it suits the convenience of the farmer; and a crop of some other plant is advantageously cultivated on it,

~~the~~ first year. In the second year the trees produce fruit, and continue to do so for some years; each clump will produce about two bunches in a year. It is necessary to plant a new field at the end of three or four years; because, when the clumps become large, the fruit is small, and the bunches contain a smaller number of fruit.

THE *Cytisus Cajan* is frequently sowed round fields of sugar-canes, egg plant, and other things: this, while it makes a slight and well looking fence, is also a source of profit to the cultivator.

AT present the poverty, prejudices, and indolence of the natives strongly operate ~~against~~ improvements in agriculture. Could an adequate remedy be found for these evils, many other things might be cultivated with great advantage. Hemp would flourish in many spots; cotton, scarcely cultivated at all in the district, might be cultivated to a large extent; if proper methods were taken to introduce the best kinds, the culture of wheat and barley might occupy many thousands of Bighás, which now lie in an uncultivated state.* The culture of some species of *Hibiscus*† would be profitable, and furnish one of the most durable fibres for cordage, and, perhaps for coarse cloths.

THE cultivation of timber has hitherto, I believe, been wholly neglected: several sorts might be planted all over this district, and indeed all over Bengal, and would soon furnish a very large share of the tim-

* I have not observed that any of the smaller grains, such as *Paspalum*, *Holcus*, &c., are cultivated in this district: they would undoubtedly prosper in many situations.

† Particularly *H. cannabinus*, *H. surattensis*, and *H. strigosus*.

ber used in the country. The Sisú,* the Andaman red-wood,† the Jaca-tree,‡ the Teak,|| the Mahogany,§ the Sattin-wood,¶ the Chak-ráfi,** the Tuna,†† and the Sirisha,‡‡ should be principally chosen. The planting of these trees single, at the distance of a furlong from each other, would do no injury to the crops of corn, but would, by cooling the atmosphere, rather be advantageous. In many places, spots now unproductive, would be improved, by clumps or small plantations of timber, under which ginger and turmeric might be cultivated to great advantage.

IN some situations Sál,||| Pitfál,§§ Jaral,¶¶ and ~~some~~ other sorts of less note would prosper.

INDEED the improvements that might be made in this country by the planting of timber, can scarcely be calculated. Teak,|| that most useful wood, is at present brought from the *Burman dominions*, though it would grow in any part of *Bengal*, and perhaps in any part of *Hindustan*. It appears, from the annals of the National Museum of Natural History, that the *French* naturalists have begun to turn their attention to the culture of this valuable tree, as an object of national

* Dalbergia Sisso.

† Pterocarpus Dalbergius.

‡ Artocarpus integrifolius.

|| Tectona grandis.

§ Swietenia Mahogani.

¶ Swietenia chloroxylon.

** Swietenia Chikraffa.

†† Cedrela tuna.

‡‡ Mimosa Secretsa.

||| Shorea rostrata.

§§ The genus of this tree is not yet determined.

¶¶ Lagerflœemia ilos regina.

utility. This will be found impracticable in *France*, but may perhaps be attempted somewhere else. To *England*, the first commercial country in the world, its importance must be obvious, and the further encouragement* of the culture of it in this country, will eventually furnish a supply of excellent timber, for ship building and various other important purposes, and obviate all apprehensions of the failure of the market where it is purchased, or of the destruction of the forests which have hitherto supplied it.

Most of the Palms, though useless as timber, deserve the attention of the agriculturist. The Sago-tree† would grow in all the high parts, and the Date-tree,‡ planted close, would greatly improve many spots now wholly unproductive. The juice of this tree is manufactured into sugar, in some parts of *Bengal*, and is highly valuable for that and other purposes. It is common to let a tree of this kind for two annas a year. Two hundred of these trees might be planted on a Bighá, which lets for a rupee and a half; this would be productive of a large income, after the first eight or ten years.

Few attempts have yet been made to improve orchards. The Mango, and other fruit trees, are often planted so close as to choke each other, and but little regard is paid by the planter to the quality of the fruit. Scarcely any attempt has been made to naturalize foreign fruits; even the Orange-tree is almost a stranger to several parts of *Bengal*, though

* The cultivation of Teak has been encouraged by Government.

† *Saguerus Rumphii*.

‡ *Phoenix Silvestris*.

some late experiments prove that it might be introduced, with success. The laudable attempts made by several *Europeans* excepted, the improving of fruits, by grafting, or by raising improved varieties from seed, has scarcely been attempted. In short, the fruits of *Hindustan* are not far removed from a state of nature.

THE remedy for these evils is obvious to every one, and the application of it would fully reward any person who would engage heartily in it.

IN this district several obstacles to agriculture present themselves to the farmer. Large numbers of wild buffaloes and hogs infest the fields, and make it necessary for the farmer to watch his crop, from the time it appears above ground, till the harvest is gathered in: as this watching is impracticable beyond a certain extent, is attended with much danger, and often ineffectual, the cultivation carried on by an individual must be proportionably limited.

THE inundations, which are occasioned by the sudden overflowing of the rivers, frequently destroy the crop through a large extent of country, or so much injure it, that by this alone, the laborious husbandman is often so reduced in his circumstances, as to be unable, or so discouraged as to be afraid, to carry on the cultivation of the soil with any degree of spirit. The bealls might be destroyed, or their ravages prevented, in various ways; but it is difficult to provide sufficiently against the effects of inundations.

PERHAPS the encouragement of cold season crops would be the best remedy for both: for the long grass being destroyed by the cultivation

of the low lands, the wild animals would find no shelter, and indeed no sustenance, when the crop was off, which might occasion them to desert the country, and the cold season crop, though often less valuable than a crop of rice, might prove a remuneration for the labours of the cultivator, and by some improvements might be brought to such a state as to become a source of considerable profit.

THOUGH these remarks relate chiefly to the district of *Dinajpur*, yet it is obvious that many of them will equally apply to the other parts of *Bengal*.

THE improvement of live stock, and introduction of dairies, the fencing and manuring of land, the introduction of wheel carriages, and a number of improvements of a similar kind, have not been hinted at, because the present state of society seems to render them to a great degree impracticable. Yet the rapid progress of agricultural improvements in *England*, encourages the hope, that a gradual improvement may also be effected in *Hindoostan*.



REFERENCES TO THE FIGURES. PLATE I.

Fig. 1.—The Plough.

- a.* The Lángala, or body of the plough.
- b.* The Is', or beam.
- c.* The Phála, or share.
- d.* The share, fixed on the plough.
- e.* The handle.

f. The Moot, or peg, to assist in holding the plough.

Fig. 2.—The Joal, Beng. or Yoke. (Sans. Yuga.)

a. The under edge, which rests on the neck of the bullock.

b. b. The elevations on the upper part.

c. c. c. c. The pins, by which it is fastened to the neck of the ox.

Fig. 3.—The Mai, or harrow. (Sans. Loṣṭbhedhanā.)

Fig. 4.—The Jánt, slung for raising water.

a. The Jánt.

b. The end, stopped with a square board.

c. c. c. The bamboo to which it is slung.

d. The bamboo, loaded at one end, to assist in raising the end *b* out of the water.

e. A man working it.

f. The reservoir, or channel, into which the water is thrown.

Fig. 5.—The Bharua.

a. Bank, or yoke.

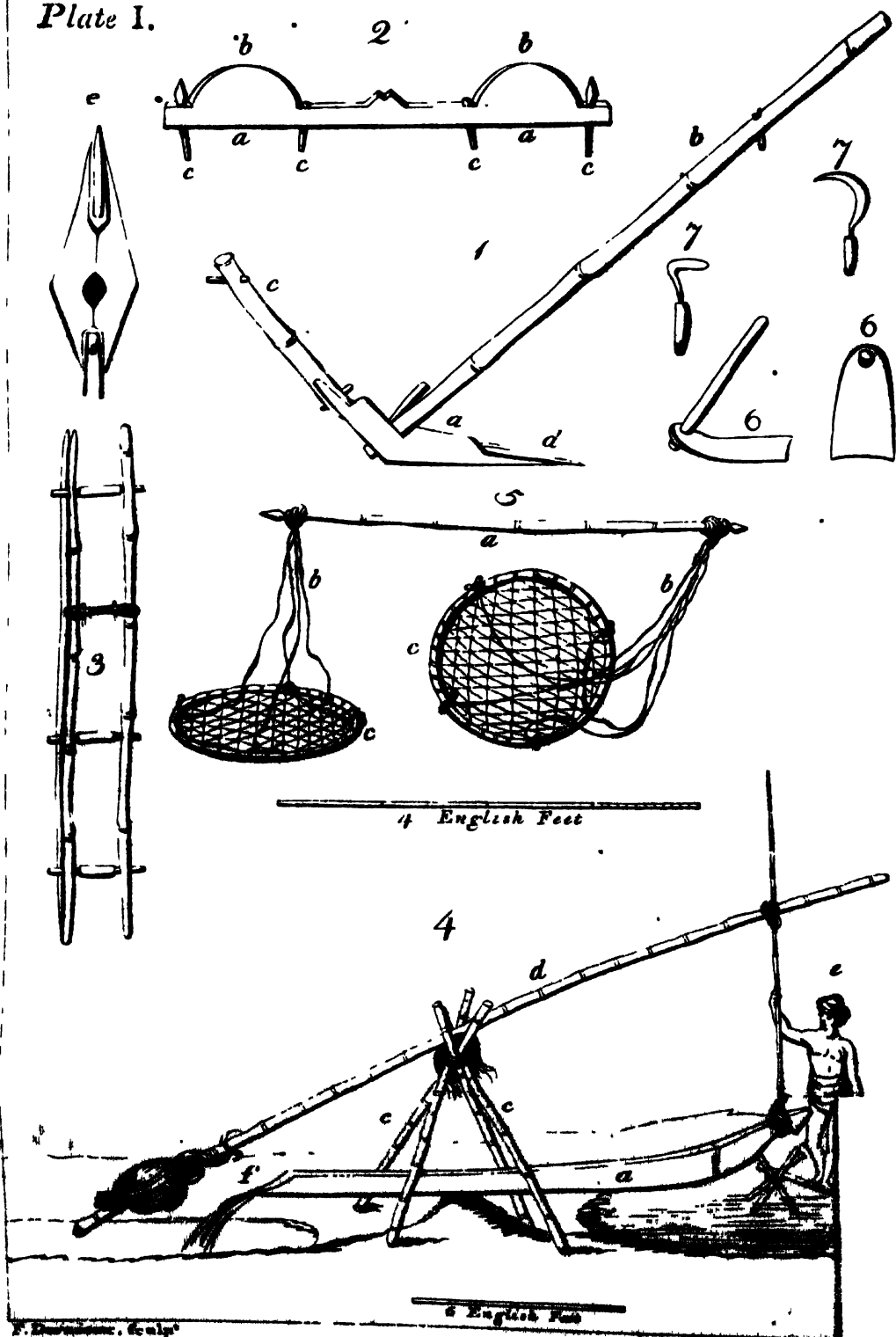
b. b. The Shikyā, or string by which the weight is suspended.

c. c. The receptacles, in which the earth or other substance is carried.

Fig. 6.—The Kodáli, or digging-hoe.

Fig. 7.—The Kastya, or sickle.

Plate I.



II.

*AN ESSAY on the SACRED ISLES in the West, with other Essays
connected with that Work.*

BY CAPTAIN F. WILFORD.

ESSAY V.

Origin and Decline of the CHRISTIAN RELIGION in INDIA.

I. IT appears, that long before CHRIST, a renovation of the universe was expected all over the world, with a Saviour, a King of Peace and justice. This expectation is frequently mentioned in the Purāṇas: the Earth is often complaining that she is ready to sink back into *Pātāla*, under the accumulated load of the iniquities of mankind: the Gods also complain of the oppression of the Giants. VISHNŪ comforts the Earth his consort and the Gods, assuring them, that a Saviour would come, to redress their grievances; and put an end to the tyranny of the *Dāityas*, or *Demons*. That, for this purpose, he would be incarnated in the house of a shepherd, and brought up among shepherds. The followers of BUDDHĀ unanimously declare, that his incarnation, in the womb of a virgin, was foretold several thousand years, though some say one thousand only, before it came to pass.*

A SHORT time before the birth of CHRIST, not only the *Jews*, but the *Romans*, on the authority of the *Sibylline* books, and the decision of the sacred college of the *Etrurian* augurs, were all of opinion,

* See also As. Res. vol. vi. p. 267.

that this momentous event was at hand. This was equally the case in the east, and a miraculous star directed the holy men, who were living in anxious expectation, where to find this heavenly child. At that time the Emperor of *India*, uneasy at these prophecies, which, he conceived, portended his ruin, and the loss of his empire, sent emissaries to inquire, whether such a child was really born, in order to destroy him : and this happened exactly the 3101st year of the *Calî yuga*, which was the first year of the *Christian Era*. This traditionary account is known all over *India* : and is equally current among the learned and the ignorant. But the *Hindus* fancy, that these old prophecies were fulfilled in the person of CRÏSHNA. What induced the *Brâhmins*, to adopt this idea, is not so obvious. It is possible, however, that they saw plainly, that if they admitted these prophecies to have been fulfilled about the time of CHRIST, some material alteration must, of course, have taken place in their religion. The *Magi* of scripture, who came from the east, were equally expecting this renovation ; and the star served only to guide their steps. This expectation, of a renovation of the world, prevailed also among the *Gothick* tribes in the north ; but after waiting patiently for some time, certain enterprising men set themselves up, for the promised MANU, or new ADAM ; and were acknowledged as such. According to their traditionary accounts, they were nettled, and puzzled with some strange reports from the east, about the appearance of some *Æsir*, *Asæ*, Gods, or godlike men ; and GYLFE is supposed to have been sent to inquire into the truth of these reports. His embassy is the ground work of the *Edda*, which concludes with these remarkable words, “ The new *Asæ*, then, took to themselves the

Names of the ancient ones; and gave themselves to be the real *Asæ*, or Gods." ODIN was one of them, and advancing towards the north, GYLFE surrendered his kingdom to him. In consequence of these notions of a change in this sublunary world, a new system of religion in *Britain*, was set up in opposition to the old one, according to the ingenious Mr. CLELAND: and this, he thinks, must have happened some time B. C. but, I think it happened later: for HENGIST and Horsa were in the tenth degree of lineal descent from this new ODIN; who, of course, was contemporay with TRENMOR, who was deified by FIN-GAL his great grandson; who appointed him an *Elysium*, from which the sons of the feeble were excluded, and priests also, I believe. That FINGAL, and his followers, held in contempt the old religion, is obvious from the ancient *Galic Poems*. Probably the defeat of the druids in *Anglesey*, for so we may call it in spite of their spells, and holy texts *churned* from their sacred *Vedas*, accelerated their ruin, and that of their religion: this, with some obscure prophecies, foretelling, that a total change, in civil and religious matters, was going to take place, induced many clever and enterprising persons, to avail themselves of all these circumstances; and to give out, either, that they were this expected divine being, or to deify their own ancestors. FIN-GAL succeeded most completely: for, till very lately, many of the *Irish*, among the poorer class, believed, that the souls of the departed went into the *Elysium* of TRENMOR and MAC COWAL, according to the industrious inquirer J. GOOD, who lived above 200 years ago: and, if the Christian religion had not prevailed soon after, TRENMOR would have been considered, in time, as the supreme

being. In the same manner, the Emperor AUGUSTUS was of course consecrated a God, after his death; and, both before and after, temples were erected in his honor, and sacrifices offered to him. The courtiers of ANTONY, acting upon the same principles, declared, that he was OSIRIS *redivivus*, *born again*, and that CLEOPATRA was ISIS. VIRGIL adds, that the renovation of the world, *so long foretold*, was going to take place, and begin with the golden age as usual: then the *Argonauts*, in due time, with the *Argo*, would reappear: and that there would be another TYPHIS, a *Trojan war* again, in which ACHILLES would signalize himself.

THE *Hindu* traditions, concerning this wonderful child, are collected in a treatise called the *Vicrama charitra*, or history of VICRAMA'DITYA. This I have not been able to procure, though many learned Pandits have repeated to me, by heart, whole pages from them. Yet I was unwilling to make use of these traditions, till I found them in the large extracts made by the ingenious and indefatigable Major C. MACKENZIE of the *Madras* establishment, and by him communicated to the Asiatick Society.

WHEN I mentioned the *Sibylline* verses, I by no means intended the spurious ones, which are deservedly rejected by the learned: but the genuine ones, such as they existed in the time of VIRGIL; whose testimony is unquestionable, and incontrovertible. Whether these prophecies were really written by inspired women, is not now the question: they were certainly current all over the west, and this is enough for my purpose. There were several of them, and the most ancient were from the east. There was a *Persian*, a *Chaldean*, an *Egyptian*, and also, according to PAUSANIAS and ELIAN, a *Judæa*, or *Jewish Sibyl* from

Palestine. Such women probably never existed: but the prophetic verses, that were attributed to them, were extracted from the sacred records of their respective countries. The fourth eclogue of VIRGIL is entirely on the subject of this long expected renovation of the world.

The last *great age*, foretold by sacred rhymes,

In the original it is, foretold by the CUMCEAN SIBYL.

Renews its finished course; *Saturnian* times
 Roll round again, and *mighty years*, begun
 From their first orb, in radiant circles run,
 The base degenerate iron offspring, (*or the Kali-yuga*) ends,
 A golden progeny (*of the Crita, or golden age*) from heaven descends:
 O chaste LUCINA, speed the mother's pains:
 And haste the glorious birth; thy own APOLLO reigns!
 The lovely boy, with his auspicious face!
 The son shall lead the life of gods, and be
 By gods and heroes seen, and gods and heroes see.
 Another TYPHIS shall new seas explore,
 Another *Argo* land the chiefs upon the *Iberian* shore,
 Another HELEN other wars create,
 And great ACHILLES urge the *Trojan* fate.
 O of celestial seed! O foster son of Jove
 See, labouring nature calls thee to sustain
 The nodding frame of heaven, and earth, and main:
 See to their base restored, earth, seas and air.

THESE are the very words of VISHNU to the *Earth*, when complaining to him, and begging for redress.

IT is obvious, that VIRGIL considered the momentous events of the *Trojan* war, the expedition of JASON in the *Argo*, and the rape of HELEN or LACSHMI, as the necessary concomitants of a renovation of the world. The *Kali-yuga*, according to VIRGIL, ended a little before

CHRIST, of whom he had no knowledge: and according to HESIOD, and the *Jainas* in *India*, the *Cali-yuga* began about 1000 years B. C. and lasted, of course, the same number of years, which were natural ones in the west, but are considered as divine years in *India*.

ABOUT 60 years before the birth of CHRIST, the capital of the *Roman Empire* was alarmed by prodigies, and also by ancient prophecies, announcing, that an emanation of the deity was to be born about that time, and that a renovation of the world was to take place. In the year of *Rome* 690 and 63 B. C. the Senate, having been convened on the ninth day before the calends of October, or the 23d of September, in order to prepare against imminent dangers threatening the Empire, the whole city was alarmed by new causes of anxiety. P. NIGID. FIGULUS, the intimate friend of CICERO, who was then consul, having heard C. OCTAVIUS apologising to the Senate for his coming so late, on account of his wife having been just brought to bed, exclaimed, you have then begot a lord and master unto us. This FIGULUS was in such estimation at *Rome*, that he was reckoned among the most learned men: and such was his superior knowledge of the mathematics, and other sciences grounded upon them, that he was believed to deal in the occult sciences. That exclamation of his threw so much more terror into the minds of the Conscript Fathers, as for a few months before, it was constantly reported, that nature was bringing forth a king unto the world, and it was said, that the same was asserted in the *Sibillyne* verses: Besides, oracles to that purport were constantly brought in from the most distant parts of the world. On this account, and more particularly on account of a prodigy that had just happened at *Rome*, the Senate, terrified, issued a

decree, that no father, during the course of that year, should presume to lift up from the ground, or bring up a new born male child. However, those among the Conscript Fathers, whose wives were with child, had the decree suppressed: and these prophecies and prodigies were afterwards applied to AUGUSTUS, who was born during the consulate of M. TULLIUS CICERO,* sixty-three years before CHRIST; but fifty-six according to several writers in the east, such as the author of the *Leb-tarikh* and others. Hence it is, that NICOLO DE CONTI, who was in Bengal, and other parts of India in the fifteenth century, insists that VICRAMÁDITYA was the same with AUGUSTUS, and that his period was reckoned from the birth of that Emperor, fifty-six years B. C.

IN the year 119 B. C. in the time of MARIUS, such direful prodigies appeared, that the sacred college of *Hetruria*, on being consulted, declared that the eighth revolution of the world was at an end: and that another, either for the better, or the worse, was going to take place: and JUVENAL, who lived in the first century, declares that he lived in this ninth revolution, which was then going on†: for the *Etruscans* reckoned twelve of these revolutions, each of one thousand years according to some: but according to others, these twelve revolutions constituted what they called the great year.

It may be asked, what prophecies are to be found in the *Puránas* concerning this Saviour and avenger. I observed before, that the *Hindus*

* See Supplement to TIT, LIV. cii. Decad. c. 39.

† PLUTARCH in SYLLAM, p. 456.

‡ JUVENAL Satyr xiii. v. 28.

would have it, that these prophecies were fulfilled long before, in the person of CRISHNA.* In this, they were wiser than the *Jews*, who, by insisting that the MESSIAH is not yet come, have plunged themselves into inextricable difficulties, and have been forced, at last, to give up any further inquiry into the time of his appearance. In this manner, many of the *Samaritans*, in order to elude the prophecies concerning CHRIST, insist that they were fulfilled in the person of JOSHUA, whose name is the same with *Jesus*, and who, according to the *Hebrew* text, was contemporary with CRISHNA; and they have also a book of the wars of JOSHUA, with SCAUBEC,* which may be called their MAHA-BHARAT:

WHEN I said, that the *Hindus* conceived, that the prophecies concerning a Saviour of the world, were fulfilled in the person of CRISHNA, I do by no means wish to convey an idea, that he was CHRIST, from whom he is as distinct a character, and person, as JOSHUA; and whose name, with the general outline of his history, existed long before CHRIST. "Yet the prolix accounts of his life," to use the words of Sir W. JONES, "are filled with narratives of a most extraordinary kind, and most strangely variegated. This incarnate deity of *Sanscrit* romance, was not only cradled, but educated among shepherds; a tyrant, at the time of his birth, ordered all the male infants to be slain. He performed amazing, but ridiculous miracles, and saved multitudes, partly by his miraculous powers, and partly by his arms: and raised the dead, by descending for that purpose into the infernal regions. He was the meekest, and best tempered of beings, washed the feet of the *Bráhmens*, and

* Reland de Samarit. p. 15 &c.

preached, indeed sublimely, but always in their 'favour. He was pure and chaste in reality, but exhibited every appearance, of libertinism; lastly, he was benevolent and tender, and yet fomented and conducted a terrible war." The *Yadus*, his own tribe, and nation, were doomed to destruction for their sins, like the descendants of YAMUDA or YUDA, which is the true pronunciation of JUDA. They all fell, in general, by mutual wounds, a few excepted, who lead through *Jambu-dwīpa* a miserable, and wretched life. There are some to be found in *Gurjarat*: but they are represented to me as poor and wretched. " This motley story must induce an opinion,* that the spurious gospels, which abounded in the first ages of christianity, had been brought to *India*, and the wildest parts of them ingrafted upon the old fable of CRISHNA." Several learned missionaries are also of that opinion, though they carry the comparison too far. The real name of CRISHNA was CANEYA, and he was surnamed CRISHNA, or the black, on account of his complexion.

THE *Hindus*, having once fixed the accomplishment of these prophecies to a period greatly anterior to the *Christian Era*, every thing in their books was either framed, or new modelled accordingly; and particularly in the *Puranas*, every one of which is greatly posterior to our era: though many legends, and the materials in general, certainly existed before, in some other shape. Yet, as inconsistency and contradiction are the concomitants of falshood and deceit, it may be supposed, that some circumstances, and particulars, tending to remove the veil they have attempted to throw over these events, may have escaped them. This

* *As. Res.* vol. 1 p. 28.

is very probable; but as I never had the most distant idea of ever investigating this subject, till very lately, I may probably have overlooked many passages of this nature; and I recollect now only two material ones, which I mentioned before. These prophecies, in the *Purānas*, concerning this Saviour, declare, that he was to appear in the latter-end of the third, and in the beginning of the fourth age: which can, by no means, be reconciled to the *Christian Era*, according to their mode of reckoning. The two passages, alluded to, are to be found in the *Padma* and *Gan'esa-purānas*. In the first, BALI, an antediluvian, and in the fifth generation from the creation, is introduced requesting the God of Gods, or VISHNU, to allow him to die by his hand, that he might go into his paradise in the *White Island*. VISHNU told him, it was a favor not easily obtained; that he would, however, grant his request: but, says VISHNU, you cannot come into my paradise now; but you must wait, till you become incarnate in the shape of a boar, in order to make the earth undergo a total renovation, to establish, and secure it upon a more solid and permanent footing: and you must wait a whole *Yuga*, till this takes place, and then you will accompany me into my paradise. A whole *Yuga*, or *Mahā-yuga* consists of 4,320,000 divine, or more probably 4,320 natural years.* These, reckoned from the fifth antediluvian generation, will fall in, very nearly, with the beginning of the *Christian Era*, according to the *Septuagint*, and JOSEPHUS's computation. As to the number

* These are a component part of the great year, or period of 12,000 years, used both in the east, and in the west, and also in *Persia*. In *India* they say that these are divine years, but in *Etruria* and *Persia*, they insisted, that these were only natural years.

of years, they are written 5,000 in round numbers in the *Garuda purāṇa*; and, as these 5,000 years are not said to be divine ones, we have a right to suppose, that they were meant originally for natural years. GARUDA, who is identified with VISHNU, and has also an inferior paradise in the *White Island*, and another in the *Euxine* or *Ieshu Sea*, thus says to a King of *Cāsi* or *Benares*, an antediluvian, and who, like BALI, wished much to be admitted into his elysium: "you cannot now enter my paradise in the *White Island*; you must wait 5000 years," when, it seems, it was to be opened. "But in the mean time, you may reside in my other paradise in the *Euxine Sea*." In the same manner ACHILLES, with CASTOR and POLLUX, and I believe CADMUS, PELIUS, &c. after residing a long time in the *White Island* in the *Ieshu Sea*, were ultimately translated into the original *White Island* in the *White Sea*.

THE *White Island* in the *Euxine* or *Ieshu Sea*, has much affinity with the *Limbus Patrum* or paradise of departed ancestors, who waited there for the coming of CHRIST, who was to open the celestial, and real paradise, for their reception.

DIVINES in *India* declare, that the surest proof of the divine mission of an *Avatāra* is his coming being foretold: that prophecies concerning a Saviour are often repeated in them, some very plain, and others rather obscure: that they are, in short, one of the fundamental supports of their religion and creed. That KRISHNA is considered as the first, in dignity and principal incarnation; and that the others are greatly inferior to this, and merely introduced to bring on the grand system of regeneration. In his time, the divine oracles were committed to writing, with

a more complete and perfect system of moral duties, and religious worship; and a race of *Brahmens* more pure, more enlightened, was introduced into India. *Kṛṣṇa* is the last *Avatāra*, or manifestation of the deity, but one; which, according to their sacred books and ours, will appear a little before the general dissolution of the world.

BUT let us return to the manifestation of *VISHNU* in the shape of a *Boar*, mentioned in the former passage. This manifestation is acknowledged to be that of the white *Boar*: for according to the *Tāpī c'handa*, a section of the *Scanda-purāṇa*, the *Calpa* of the *Boar* consists of four inferior ones, denominated from four manifestations of the great *Boar*: The first subordinate *Calpa* is that of the *Curma-Varāha*, or *Tortoise-boar*; this is the *Curma-Avatāra*: the second was that of *Adi-Varāha*, called *Adi-nā'ha* also, particularly by the *Jainas*: this is the *Varāha-Avatāra*: the third is, that of *Varāha*, with the title of *CRĪSHNA*: and the fourth, and present *Calpa*, is that of the *White Boar*, and which is very little noticed in the *Purāṇas*. In the *Prabhāsa-c'handa*, a section of the *Scanda-purāṇa* also, these four *Calpas* have different names; and to them three more are added, making in all seven *Calpas*: and we are now in the seventh. These are the *Calpas* of *VISHNU*, under the seven different denominations of *ŚRĪYA-VRATTA*, *VĀMANA* contemporary with *BALI*, *VAJRĀṅGA*, *CAMALĀ-PRABHU* (*CAMULUS DEUS*), *SWAHARTA*, *PURUSHOTTAMA*, and the seventh, *DAITYA-SUDANA*. In the fourth *Calpa* of *CAMALĀ-PRABHU*, and which is called also the *Calpa* of *VARĀHA*, says the author, was born *ICSHWACU* the son of *NOAH*, in the *Trēta* or second age: and the four last *Calpas* answer to the four *Calpas* of the *Boar*, the last of which is that of *DAITYA-*

SUBAMA, thus called from **VISHNŪ** completely overthrowing the empire of the *Dairys* or *Demons*. These four *Calpas* are obviously to be reckoned from the flood. The *Calpa* of **PURUSHOTTAMA**, answers to that of **CRISHNA**; whose birth was followed by a general massacre of all the male children, through the whole country, by **CANSA**, in order to destroy him. But let us return to this wonderful child, who was to manifest himself to the world, when 3100 years of the *Cali-yuga* were elapsed, that is to say in the 3101, answering to the first year of the *Christian Era*, according to the *Cumārīcā-c'handa*, and the *Vicrama-charitra*. According to the same respectable authority, the purpose of his mission, was to remove from the world wretchedness and misery: and his name was to be **SACA**, or the mighty and glorious King.

SA'LIVA'HANA was the son of a *Tacshaca*, or carpenter; and was born, and brought up in the house of a potmaker. God is called **DEVA-TASHT'A** or God the artist or creator, in *Sanscrit*; and also **DEVA-TASHT'A**, from which is derived **DEO-TAT** or **TEUTAT** in the west, called **TWASHT'A** or **TUISTO** by the *German* tribes. He produced **MANNUS**, man, the first **MĀNU**, who had three sons. In *Greece*, according to **PINDAR**, God the father of mankind, and creator of the world, was called *πατήρ Ἀριστοτέχνης*, the father and best artist. This carpenter, the father of **SA'LIVA'HANA** was not a mere mortal, he was the chief of the *Tacshacas*, a serpentine tribe, famous in the *Purān'as*. There, they are declared to be the most expert artists, and mechanics, in the world: and they are by no means confined to a few trades: but their skill embraces every branch. When the elephant **AIRA'VATA**, with his immense retinue in the same shape, came, in his way to the plains of *U-*

tara-Curu or *Siberia*, to worship at *Prabhāsa* in *Gurjārat*, they planned, and excused a road for him, through the N.W. quarter of *India*, which is said still to exist. The *Tacshacas*, or *Tacshas*, have, as usual, two countenances, that of serpents, and a human one, which they assume at pleasure.

THE chief of them is obviously the same with the serpent *AGATHO-DÆMON*, the *Demi-urgos*, *Opifex*, and artist of the *Egyptians*, *Greeks*, *Gnostics*, *Basilidians*, &c.' These sectaries asserted, that the serpent was the father, and author of all arts, and sciences; and this serpent, they said, was the *CHRIST*, who was thus the son of a carpenter, and artist; and at the same time an incarnation of the great serpent, exactly like *SA'LIVA'HANA*, the *SACA*, or mighty and glorious King. *SA'LIVA'HANA* was the son, or rather an incarnation, of the great serpent: and his mother was also of that tribe, and incarnate in the house of a pot-maker. She conceived at the age of one year and half, the great serpent gently gliding over her, whilst she was asleep in her cradle.

THE heresy of the *Ophites* spread widely at a very early period: they extolled the serpent, as the author of the science of good and evil. Such was, they said, the majesty and the power of the brass serpent, exposed upon a stake in the desert, that whatever man looked up to him was immediately cured. In the same manner, that the serpent had been exalted upon a stake in the desert, for the good of the people, so it was necessary that *CHRIST* should be exalted also, upon a stake or

cross, for the good of mankind, and in a scriptural sense this serpent was the type of the Saviour of the world.

THE pot-maker used to make figures of clay of all sorts, to amuse his grandson; who soon learned to imitate them; but he endued them with life. His mother carried him one day to a place full of serpents, telling him, "go and play with them; they are your relations." The child went and played with them, without fear, and without receiving the least injury. These two last particulars are never omitted by the narrators:

ABOUT that time VICRAMADITYA, the Emperor of *India*, was made very uneasy, by general rumors, that the old prophecies were accomplished in the person of a child born of a virgin, and who would conquer *India*, and all the world. He sent emissaries every where to inquire into the truth of this extraordinary event, and find out this heaven-born child. They soon returned, and informed him, that it was, but too true, and that the child was then in his fifth year. VICRAMADITYA immediately raised a large army in order to destroy the child, and his adherents, in case he should have any. He advanced with all possible speed, and found the child surrounded with innumerable figures of soldiers, horses, and elephants. These the child endued with life, and attacked VICRAMADITYA, who was defeated, and left on the field of battle, mortally wounded by the hand of young 'SA'LIVAHANA.* The dying monarch only begged of his conqueror, that he would allow his own period to be equally current all over *India* with his. This the child granted, and then cut off his head, which he flung into the middle of the city of *Ujjayini*; though at an immense distance.

* See *Asiat. Research*. Vol. IX, p. 118, 120.

In the mean time VICRAMADITYA's army fell back toward *Ujjain*, pursued by *SA'LIVA'HANA*'s forces, and in their way crossed the *Narmadā*. There, the army of *SA'LIVA'HANA*, consisting of soldiers of more clay, was suddenly dissolved, and disappeared in the waters of the river. After this, we hear no more of *SA'LIVA'HANA*, except that he disappeared in the 79th year of the *Christian Era*, which is the first of his period. His name is not even mentioned in the lists, either of the Emperors of *India*, or of the Kings of *Ujjain*. Immediately after the death of VICRAMADITYA, his wife was delivered of a son, whom they wanted to crown Emperor of *India*, in the same manner as if *SA'LIVA'HANA* had never existed: but being a posthumous child, he could not succeed to the empire; he was, however, perfectly eligible to the throne of the kingdom of *Malava*; and was of course immediately crowned at *Ujjain*.

THIS took place, according to the *Cumārīcāc'handa*, in the first year of the *Christian Era*, when *SA'LIVA'HANA* was in his fifth year; and it is remarkable, that our Saviour was equally in his fifth year at that time: The principal circumstances of this legend are taken from the Apocryphal Gospel of the infancy of *JESUS*, written in *Greek* in the third century; of which, an *Arabic* translation, made at a very early period, is still extant. HENRY SYKE has given a translation of it in *Latin*, with some fragments still remaining of the *Greek* original. In these fragments it is declared, that the infant *JESUS*, when five years of age, amused himself with making figures of clay, which he endued with life. This idle story is mentioned also in the *Korān*, and is well known to *Muslemans*. This remarkable coincidence of

Historical facts, legendary tales, and also of times, in my humble opinion, cannot be merely accidental.

THOSE, who acknowledge, that there are four VICRAMAS, always consider 'SA'LIVA'HANA as one of them, and assert that he had of course a famous bard at his court called CALIDA'SA. Thus, when called VICRAMA'DITYA, he always appears alone as king of *Pratish'tana*, and as such he is represented in the appendix to the *Agni-purāṇa*. This is the famous King of *Pratish'tana*, with the title of 'TRI-VICRAMA, or with the triple energy, as we have seen before: but his real name was VI-SAMA'SILA, or simply SAMA'SILA. As *Pratish'tana* is acknowledged to belong exclusively to 'SA'LIVA'HANA, as *Ujjayini* does to VICRAMA'DITYA, whatever King, called VICRAMA, or VICRAMA'DITYA, is represented as sovereign of *Pratish'tana*, the same is 'SA'LIVA'HANA and, when we find a VICRAMA'DITYA said to have lived or reigned eighty-four years, him we must conclude to be 'SALIVA'HANA, according to the learned *Pandits*, and astronomers, who gave me this information.

THERE was a King at that time called VICRAMAMITRA, the seventeenth from CHANDRAGUPTA, according to the *Bhāgavat*, *Brahmāṇḍa*, *Āyū* and *Vishnu-Purāṇas*;* and VICRAMAMITRA or VICRAMITRA, as it is erroneously spelt, is synonymous with VICRAMA'DITYA or VICRAMARCA; and that VICRAMAMITRA was intended for VICRAMA'DITYA, by the compilers of the *Purāṇas*, admits of no doubt, for they say, that his father was GHOSHARAJA, who was the same with GANDHARUPA, as we have seen before.

* Sections on Futurity.

'SĀLIVĀHANA is considered under three different points of view, according to the three different objects and purposes of his mission; and accordingly he is said to be either an incarnation of BRAHMA, of 'SIVA, or of VISHNU. He is sometimes considered as conjointly possessing these three powers, and he is then said to be TRI-VICRAMA.

WHEN the object of his mission is declared to be to destroy the kingdom, and power, of the *Daityas* or demons, he is then said to be an incarnation of 'SIVA; as in the legends of SAMA-SILA King of *Pratishṭāna*:

IN consequence of this destruction, a regeneration takes place, as attested in the legends of the good MANDAVYEH called 'SULASTHA, or he who was crucified. 'SĀLIVĀHANA is then said to be an incarnation of BRAHMA: and this is the general opinion of the inhabitants of the *Dekhin*, according to A. ROGER, and others.

BUT, when considered independently of these two energies, meek and benevolent, doing good to all mankind, he is then VISHNU, and this is the opinion of the 'SĀLIVĀNSAS in the provinces of *Benares* and *Oude*.

THUS we see, that 'SĀLIVĀHANA goes through the TRIMURTTI; and when these three energies are considered as united in him, he is then VI-SAMA-SILA-TRI-VICRAMA King of *Pratishṭāna*, called also 'Saileyadhāra, or simply 'Saileyam, in a derivative form.

PRATISHṬĀNA is the usual *Sanscrit* expression for any consecrated place or spot, and it implies here, the holy and consecrated city, and is synonymous with the *Bet-al-Kaddes*, and *Bet-al-Mokaddes* of the *Muslemans*.

'SAILEYA-D'HÁRÁ' another name for it, is mentioned in the beginning of the *Jyotirvidábharaṇa* an astronomical treatise, in which the author, giving an account of the six 'Sacas, says that 'SÁLIVÁHANA would appear at 'Saileya-d'hárá, or the city firmly seated upon a rock, which compound alludes to the city of *Sion*, whose foundations are upon the holy hills, "the city of our God, even upon his holy hill." 'Saileyam would be a very appropriate name, for it is also, in a derivative form from 'Saila, and is really the same with 'Saileya-d'hárá : and the whole is not improbably borrowed from the Arabic *Dár-al-Sálem*, or *Dar-es-Sálem*, the house of peace, and the name of the celestial *Jerusalem*, in allusion to the *Hebrew* name of the terrestrial one. The Sanscrit names of this city of the King of 'Saileyam, or 'Sálem imply its being a most holy place, and consecrated apart, and that it is firmly seated upon a stony hill.

I MENTIONED, in the preceding essay, that 'SÁLIVÁHANA was also called SAMUDRA-PÁLA, that is to say, fostered by, or the son of, the ocean. This implies, that either he, or his disciples, came by sea; and this notion has a strong resemblance with a passage from the second book of *Esdras*, in which CHRIST is represented, as ascending from the sea, firmly seated upon a rock. This christian romance is of great antiquity, for it is mentioned by IRENEUS, CLEMENS of Alexandria and TERTULLIAN, who considered it as a book of some antiquity, and almost canonical.

ALL these sacred, and most expressive epithets, the *Hindus* have applied to an ancient city in *India* now called *Pattana* on the banks of the

Godāveri: but with what propriety, will appear hereafter. Be this as it may, whether in *India* or out of it, there, at *Saileyam*, *SĀLIVA HANA* was to be born, of *Virāḡa* one year and half old: his father was to be the great *Taashāca* or carpenter, and himself was to live in the humble cottage of a pot-maker. This legend is somewhat differently told by others, as we have seen in our account of *VICRAMĀDITYA*. His mother was a married woman; but her husband, a *Brāhman*, died, whilst she was still very young. She conceived by the great *Taashāca*, carpenter or artist, and when her pregnancy became obvious, her two brothers, ashamed of her seemingly unwarrantable behaviour, left *Pratish'tāna*, and the unfortunate young woman, thus unprotected, found an asylum in the humble cottage of a pot-maker: and, in the *VICRAMA-CHARITRA*, she is said to be his daughter; whilst, according to another legend, *SIVA* was incarnated in the womb of the wife of King *SURA-MAHENDRA'DITYA-BHU'-PATI*, and there was born, under the name of *SAMA-SILA-TRI-VICRAMA*, or with the triple energy.

It is declared in the *VICRAMA-CHARITRA*, that the birth of this divine child, from a virgin, had been foretold one thousand years before it happened, nay some say two thousand. That a Saviour was expected with a regeneration of the universe, all over the more civilised parts of the world, in consequence of certain old prophecies, cannot be denied, at least in my humble opinion. It was firmly believed in the west: it was so in the east; and in the intermediate countries among the *Hebrews*, it was a fundamental tenet of their religion. Whether this notion was borrowed from the *Jews* or not, is immaterial to the present subject. It is by no means necessary to have recourse to

this expedient, in order to account for this once prevailing opinion, and I am rather inclined to think, that this was not the case,

THE time of his birth is thus ascertained from the *Cumārīca-c'handa*, a section of the *Scanda-purāna*,* in which we read, *Tāta trīṣa sahasrēṣu sate chāpyadhicēṣu cha; 'SACA nāma bhavishyas'cha yōtidūridra hāraca.* "When three thousand, and one hundred years of the *Cali-yuga* are elapsed, then 'SACA will appear and remove wretchedness and misery from the world." But it is necessary to observe here, that this is the first year of his reign, and that it has nothing to do with the first of his era. In the same manner, the author of that section says, that the first year of VICRAMA'DITYA's reign answered to the 3021 of the *Cali-yuga*, which date is equally unconnected with the first year of his era. In the appendix to the *Agni-purāna*, we find that 'SA'LIVA'HANA began his reign 312 years after the death of CHAN'AGYA, and CHANDRAGUPTA, which places it also in the first year of our era. It is remarkable however, that in the appendix to the *Agni-purāna*, and the copy from it in the *Ayin-Acberi*, the years are computed, or reckoned, from the first of 'SA'LIVA'HANA's reign, answering to the first of CHRIST, but not from the first of the former's era.

'SA'LIVA'HANA died in the year of our era 79, and he lived eighty-four years. According to the *VICRAMA-CHARITRA*, he was in the fifth year of his age, when he manifested himself to the world, and de-

* Paragraph 42.

feated VICRAMA'DITYA. This places his manifestation in the first of the *Christian Era*, when CHRIST was also in his fifth year and in the latter end of it, for he was really born four years before the beginning of our era.

THIS places, also, the accomplishment of the old prophecies, VICRAMA'DITYA's inquiries after this divine child, born of a virgin, exactly in the first year of our era. For, a thousand years before that event, the goddess CALÍ had foretold him, that he would reign, or rather his posterity, according to several learned commentators in the *Dékkin*; as mentioned by Major MACKENZIE, till a divine child, born of a virgin, should put an end, both to his life and kingdom, or to his dynasty, nearly in the words of JACOB* foretelling to JUDAH, that the sceptre should not depart from him, or his *Dynasty*, until SHILOH came, 'SA'LIVA'HANA or King 'SA'LA.

As to his character, it is declared in the *Cumáricá'c'han'da*, as we have seen before, that he would come for the purpose of removing wretchedness, and misery, from the world.

IN the appendix to the *Agni-purāṇa*, it is declared, that in the holy and consecrated city of *Pratishṭāna*, firmly seated upon a rock, called 'Saileya-a'd'hard or 'Saileyam, through the mercy of 'SIVA, would appear 'SA'LIVA'HANA, great and mighty, the spirit of righteousness and justice, whose words would be truth itself, free from spite and envy, and whose empire would extend all over the world (or in other words, that the

* Genesis, chap. 49. v. 10.

people would be gathered unto him) the conveyor of souls to places of eternal bliss. On account of this benevolent disposition, he is compared in the *Vansávali*, to DHANANJAYA ^{or} ARJUNA, whose character is so well delineated in the inscription on a pillar at *Buddál*. He did not exult over the ignorant and ill favoured: he neither vainly accepted adulation, nor uttered honey words, and was the wonder of all good men. His wonderful equanimity on all occasions, and with regard to every one, of whatever rank in life, and whatever might be their natural faculties, and mental dispositions, are implied by the epithet of *Vi-SAMA-SILA* bestowed upon him.

His conception was miraculous, and in the womb of a virgin: he was the son of the great artist, and the virtue of his mother was at first suspected: but choirs of angels came down to worship her. His birth was equally wonderful: choirs of angels with the celestial ministrally attended on the occasion, showers of flowers fell from on high. The King of the country, hearing of these prodigies, was alarmed and sought in vain to destroy him. He is made absolute master of the three worlds, heaven, earth and hell: good and bad spirits acknowledged him for their lord and master. He used to play with snakes, and tread upon the adder, without receiving the least injury from them: he soon surpassed his teachers; and, when five years of age, he stood before a most respectable assembly of the doctors of the land, and explained several difficult cases, to their admiration, and utmost astonishment; and his words were like ambrosia.

IN the copies of the *Vansávali*, current through the western parts of India, he is constantly called SAMUDRA-PA'LA; because either he, or some of his disciples, came by sea; and he is of course the same with the *Mlech'hávatára*, or incarnation of the deity among foreign tribes, mentioned in several astronomical tracts; and he is mentioned, in that character, in the section erroneously attributed to the *Bhavishya*. There he is declared to be RU'MADE'S'A'DHIPATI-SACE'S'VARA, the lord and master of the empire of Rome; and the author of the sacred period current through that vast empire; and which, according to the appendix to the *Agni-purá'na*, began to prevail over that of VICRAMA'DITYA in the year 676 of our era. We have seen before, that he was born for the purpose of removing misery from the world, and to check the power of the demons; and, at the earnest intreaties of the subaltern deities on earth, and all good men, who were groaning under their tyranny, SIVA comforted them, and assured them, that after a certain time, he would be incarnated in the character of VI-SAMA-SILA, with the title of TRÍ-VICRAMA, or with the triple energy.

THE occasion of his being born, is declared also in the *Vrīhat-cat'há*. The gods, being vexed by the wicked, went to MAHA'-DE'VA, and said, "you and VISHNU, have destroyed the *Asuras* or *Demons*, but they are born again as *Mlech'has*, who constantly vex us and the *Bráhmens*. They will not allow sacrifices to be performed, but destroy the implements and holy utensils: they even carry away the daughters of the *Munis*." MAHA'-DE'VA promised relief, and caused one of his forms, or emanations, called MA'LYAVA'NA, to be incarnated, saying to him, "go and destroy the wicked; all the world will submit to thy power, as

well as good and wicked spirits." Then MAHA'DE'VA appeared to the father, informing him, that his wife would conceive, and the fruit of her womb be an incarnation of the deity; and he directed that his name should be VICRAMA. When his mother had conceived, she became resplendent like the morning sun; and this resplendence answers to the *Nûr* of the *Muslemans*, from which ISSA proceeded. Immediately all the heavenly spirits came down to bow to her, and and worship her. When the child was born, the celestial music was heard, and a shower of flowers took place. The high priest, who was childless, obtained also a son, as well as the prime minister.

IN the legends relating to 'SA'LIVA'HANA, it is in general asserted, that his mother being found with child, her character suffered so much, that her two brothers, through shame, left their native country.

IN the present legend, 'SA'LIVA'HANA, under the name of VI-SĀMA-SILA with the triple energy, is represented as the son of a King, and as residing at *Pratishṭ'āna*, the consecrated city, or *Saileyam*. We are then informed, that young VI-SĀMA-SILA made a surprising progress in learning, and soon surpassed his teachers. His father then resigned the kingdom to him, and SĀMA-SILA became king of heaven, earth and hell; all spirits, good and bad, obeyed his orders; his resplendence was like that of the sun, and his fame reached the *White Island* in the *White Sea*. The scene is then transferred to *Ujjain*, where he appears like VICRAMA'DITYA: then follows a minute account of his wars; but even then, there is no mention made of his wars with

'SA'LIVA'HANA, for a very obvious reason, though in the latter part the story is somewhat misrepresented.

LET us now consider SAMA-'SILA or 'SA'LA-VA'HANA, an incarnation of the great *Tacshaca*, in the humble cottage of a pot-maker in the skirts of 'Saileyam, or the consecrated city, as related above.*

THOUGH without teachers in that humble station, he surpassed all the learned in knowledge and wisdom; and I have already mentioned the famous will, which puzzled all the princes and learned men of the country, till a solution of the mystery was given by 'SA'LIVA'HANA, who was then in the fifth year of his age.†

THERE is a curious account of 'SA'LIVA'HANA, and of his crucifixion, in the *Raja Tarangin'i*, or history of *Cas'mir*. There we read, that 145 years after the accession of VICRAMA'DITYA to the throne, there appeared King 'ARYYA, who was before prime minister of King JAYA-INDRA, and whose name signifies the lord of victory, or of victorious hosts. It was decreed, that he should be wretched, and persecuted all his life time, and ultimately that he should die upon a cross; that he would be brought to life again, through the assistance of a *Phan'i-Canya*, or damsel of the *Serpentine* tribe; and then would become a great and powerful monarch. The King, having been circumvented by his enemies, threw into a loathsome dungeon SANDHI-MATI, for such was the name of his prime minister. But his enemies were not satisfied, and

* Page 39.

† As. Res. vol. ix. p. 128.

they informed the King, that SARASVATĪ, *divine wisdom*, or collectively those endued with divine knowledge, had declared, that he would be a King. JAVA-INDRA, called CHANDRA in the *Ajñ-Achēri*, ordered him immediately to be crucified. There he remained, till his flesh dropped off, or was torn off by wild beasts. A certain holy man happened to pass by, and reading his destiny in the *Brahmān'da*, or in his scull, immediately resolved to bring him to life again. For this purpose he performed the *pūjā*, and after the usual ceremonies and invocations, he rung the bell, and was surrounded by a fiery meteor, which announced the presence of the *Yōgins*, or forms of DE'VĪ. Then, arming himself with a scimitar, as usual on such appearances, he went to the forest, where the prime minister hung upon the cross. He was immediately surrounded by *Yōgins*, one of whom, the *Phant-canya* I mentioned before, arranged the bones together, and SANDHI-MATI stood upon his legs. The King, hearing of this, went to the forest, when all the *Yōgins* disappeared: this resurrection of SANDHI-MATI took place in *Muni-puri*, or the city of holy contemplators. He then ascended the throne, and, on account of his transcendent virtues, was called 'ARYYA-RA'JA, or the good King.

THE author gives us then an account of his excellencies, and of his worth; and informs us that he was a servant and favourite of MAHA-DE'VA. The ways of the supreme being, says he, are wonderful, and truly pass all understanding and belief; yet there are similar instances recorded of old, such as in the case of *Paricshita* &c.* The differ-

* See *Rāja Tarangini*, and the extract from it in the *Ajñ Achēri*, history of the Kings of Cashmir.

ence, between the two eras of VICRAMA'DITYA and 'SA'LIVA'HANA, is made here to be 145 years, according to the computation used all over the *Dekhin*: for in the northern parts of *India*, they reckon only 135.

KING 'ARYYA is the same with the PRA-'ARYYA-S'IRA of the followers of GAUTAMA in *Siam*, and other countries to the eastward of it. This signifies the mighty and venerable Sire, or chief of the 'ARYYAS or *Christians*: and with him BUDD'HA waged war, as well as with his disciple PRA-SWANA, thus called because he loudly preached against the doctrine of BUDD'HA. The 'ARYYA-RA'JA is also the same with DE'VA-TWASH'TA' or DE'VA-TA'T, who was crucified by order of BUDD'HA. King 'ARYYA was succeeded in the throne by GÓPA'DITYA, the grandson of King YUDHISHTHIRA, the immediate predecessor of PRETA'PA'DITYA, who brought VICRAMA'DITYA from distant regions to *Cas'mir*, and made him King of that country. PRETA'PA'DITYA, and VICRAMA'DITYA are epithets synonymous, or very nearly so.

MANY learned *Hindus*, for several centuries past, conceive that the eldest VICRAMA'DITYA was far from being contemporary with 'SA'LIVA'HANA; and of course conclude, that he is not the famous 'SACADWISHI or 'SACA'RI, that is to say the enemy of 'SA'LIVA'HANA; and consequently they suppose, that 'SACA'RI must have been the epithet of some more modern VICRAMA'DITYA. This notion is countenanced certainly in several of the lists, which I have produced; and the author of the *Raja-Tarangini* acknowledges, that it was the opinion of many; and though he does not countenance it, shews plainly, that in his time it

was by no means a new idea.* The compiler of the *Vansāvali* seems willing to adopt it, when he says that many learned men reject the whole, as altogether fabulous, and unwarrantable. Their reason, I am told, is that ŚACA is the MLE'CH'HA'VATA'RA, who did not appear, or rather whose period was not known in India, till about 1200 years ago. In conformity to this idea, in the section attributed to the *Bhavishya-Purān'a*, ŚACA is declared to be the lord and master of Rome, which is to be taken in a spiritual sense; and in the *Agni-purān'a*, the introduction of his period into India is made to correspond with the year 676 of CHRIST.

THIS *MLE'ch'hāvatāra*, or incarnation of the deity among foreign tribes, is peculiarly noticed in the *Rōmaca-Siddhānta*, an astronomical treatise, according to the system of the *Rōmacas*, or *Romans*, called *Romaicōi* (Ρωμαῖοι) by the *Greeks*. This treatise is said to be very voluminous, and is so scarce, that I have not been able to procure it; and I believe it is not to be found at *Benares*. This deficiency I have been able to supply from the *Sūryārūn'a-samvāda*, the *Sidd'hānta-Rāja*, and the *Sūrya-Sidd'hānta*. The sun, having been appointed by *Brahmā*, to be the eye witness of all transactions in this world, and to regulate the hours and time, refused to obey, and withdrew into the desert, to perform *tapasya*, in order to be reunited to the Supreme Being. In consequence of this refusal, he was cursed by *PURU'HU'TA*, or *INDRA*, and *VRANCHI*, or *BRAHMA'*. In the *Sūrya-Siddhānta*, it is said, that

* SACA'RI Vicramāditya ki sabhramamās'ritaiḥ, anyair atrānyathā lec'hivir'amvādi caḍḍa-thitam.

MAYA, the chief engineer of the *Daillyas*, and the son of TWASHTA, made *tapasya* in honor of the sun, in order to obtain astronomical knowledge; the sun appeared to him, and said "I know the rectitude of thy heart, and I am much pleased with thy *tapasya*. I shall therefore impart unto thee the doctrine of TIME, and of the revolutions of the planets. But as no body can bear my refulgence, and as it is not in my power to stop my course, for a single moment (for this reason go back to thy own *puri*, town, or place of abode, and there I shall impart unto thee knowledge, in the town of *Rómaca*, where I shall become the MLE'CH'HA'VATA'RA, through the curse of BRAHMA'.) This form of mine, here present, will teach thee every thing": then the sun, having directed this new form to teach him, disappeared, and MAYA bowed himself to the ground before this emanation.

THE *śloka* between the two brackets is not found in general in the copies of the *Sūrya-siddhānta*; yet without it there seems to be something wanting: but whether an interpolation or not, its purport is established in the following astronomical treatises. In the beginning of the *Sidd'hānta-Rāja*, the author says, from history (*Itihāsa*) I know, that BHĀSCARA-SU'RYA became a *Rómaca*, through the curse of PURU'HU'TA and VIRANCHI. He became a *Yavana* in *Rómaca-pattana*, and in the garb and countenance of a *Rómaca*, he composed a most complete treatise on astronomy.

IN the beginning of the *Sūryārun'a-samvāda*, the sun is introduced, saying, "I gave the *Rómaca Sidd'hanta* to RÓMACA, whilst living among the *Yavanas*, in consequence of BRAHMA's curse. RÓMACA taught it

Rômaca-magaré in the town of *Rome*, for he dwelt among the *Mlêch'has* in consequence of that curse; *Rômaca-puri* is the town of *Rome* in the west. "Then," says *Arun'a*, "how came you to assume the countenance of a *Mlêch'has*, in the west, in a land of unrighteousness." "BRAHMA' cursed me," answered the sun, "and said be thou born in the west, in *Rômaca-pura*, and of the *Mlêch'has*, who are ignorant of the *Vêdas*, of the *Yajna*, or of the proper mode of performing sacrifices, *Carma*, religious rites and discipline; who have rejected *sarvadharma*, all religious duties, are *dush'ta*, inclined to evil, *nâstika*, heretics; and who (the *Romans*) are a *Yavna* tribe, guilty of every sort of uncleanness. Thus, in that shape, I taught them astronomy."

THIS *MÊCH'NA'VATA'RA*; or superior incarnation* of the deity among foreign tribes, *RUMA-DE'SA-PATI* the lord of the country or empire of *Roum*, or *Rome*, (because his doctrine, institutes, and laws prevail through it;) *Rômaca-nagara*, said to reside in *Rome* its metropolis, (because he is revered and worshipped there with unusual magnificence;) *SACÊS'VARA* the lord of a sacred period, (or as I think it should be understood, after whom it is denominated,) is obviously *JESUS CHRIST*; at least it appears so to me. From his being a *Sacês'vara*, the *Hindus* suppose him also to be a great astronomer. In the *Sûrya-Sidhânta*, he is repeatedly called *SRI-SÛRYA'NSA*, or the blessed *SU'RYA'NSA*; he is also styled *RÔMACA-AVATARA*, or simply *RÔMACA*. In consequence of this, *SÂ'LIVA'HANA*

* Inferior incarnations are denominated *Avantara*.

Spaniards, might be ascribed to MUHAMED, and ST. JAGO the champion of *Spain*, who led constantly her armies, and destroyed very many *Moors*: hence he is called ST. JAGO MAMA-MOROS. DIODORUS the *Sicilian* says the same of ALEXANDER the son of JUPITER;* and, though dead, he was supposed to be at the head of the armies, and to regulate the conduct of their chiefs, and thus every victory was ascribed to him.

IN many parts of the *Peninsula*, *Christians* are called, and considered, as followers of BUDD'HA; and their divine legislator, whom they confound with the apostle of *India*, is declared to be a form of BUDD'HA, both by the followers of BRAHMA', and those of JINA: And the information I had received on that subject, is confirmed by F. PAULINO.†

SOME legendary tales, obviously relating to the death of our Saviour, have found also their way into the *Peninsula*. There was a certain *Peishé cára Bráhmén* (for thus the *Christians* were called, and CHRIST in the Apocryphal Gospels, and by the *Manicheans* was considered as a *Peishé-cár Bráhmén*; an artist, manufacturer, or carpenter,) who came to a certain place, and there loudly proclaimed, that all persons in distress should come to him; and that he would take them under his protection, and EVEN LAY DOWN his life for them. He was then sitting like a *Muni*, or contemplator; and many came to him: among them was a thief, who had robbed the King's palace to a considerable amount. The officers of justice soon arrived in pursuit of him;

* Diod. Sic. p. 660 and 678.

† *Systema Brahmanicum*, p. 162.

but the holy man would not deliver him up, saying, that he was ready to die in his place; and in that of all those, who claimed his protection. The King ordered, that the holy man should suffer immediate death, upon a *Sula* or *Suli*, which means a stake, either one for empaling, or a gibbet, or cross. Crucifixion being unknown to the *Hindus*, they of course, have no name for it; and *Sula* or *Suli*, originally a stake, signifies also a gibbet, or the cross; exactly like *Stavros* in *Greek*. It is so even in the *Persian* language; and so it was among the *Romans*, according to *SENeca*;* crucifixion signified both empaling and extending the arms upon a cross bar; for these two modes of punishment were equally in use among them; a circumstance very little known.

THEN the holy man was stretched upon the *Sula*, amidst the lamentations of the surrounding multitude, to whom he observed, that he came for that purpose, (to atone with his life for the sins of others.) The *Sula* was suddenly changed into a *Sála*, or tree loaded with flowers; a *pushpa-varsha* took place, as usual on such occasions; that is to say, it rained flowers from on high; a celestial car, with divine choristers, came down to translate into heaven the holy man, who, taking the thief by the hand, said, "thou shalt also be with me in *Cailása* or paradise." Thus they went to *Cailása* in the presence of an immense croud, who with uplifted hands, loud huzzas, and tears of joy, testified their satisfaction, at the sudden change. The *Musulmans*, and the *Manicheans*, with many other sectaries, will not allow that *CHRIST* was really crucified. Some say, that it was a mere illusion; others allege,

* *SENeca* de *Consol.* ad *Marcium*, p. c. 20.

that he disappeared, and went to heaven. The *Manicheans*, who spread their errors at a very early period, not only in the northern parts of *India*, but also in the *Peninsula*, always represented CHRIST crucified upon a tree, among its foliage and flowers. Though this legend is not applied to 'SA'LI-VA'HAN, or 'SA'LA-VA'HAN, as it is pronounced in the *Dekhin*; yet, when the good *Peshé-car Brâhmen* was stretched upon the 'Sula or 'Suli, he was really 'Suli-vâhana, or cross-borne: and when the 'Sula was changed into a 'Sâla or tree, he was certainly 'Sâla-vâhan, or 'Sâli-vâhan, he who was exalted, or borne upon the tree. Though the punishment of the cross be unknown to the *Hindus*, yet the followers of BUDD'HA have some knowledge of it, when they represent DE'VA-TAT, crucified by order of BUDD'HA upon an instrument somewhat resembling a cross, according to the account of several travellers to *Siam*, and other countries.

WE read in *Sanscrit* lexicons, that 'SA'LIVA'HAN was also called HA'LA a plough; it should be HA'LA-VA'HANA, or in composition, HA'LI-VA'HANA; he who was borne, or crucified upon a plough. The old *Indian* plough had originally the shape of the letter Y, like the old *Latian Furca*, or bifurcated stump of a tree. To one branch, the ploughshare was fixed; and the other branch served as a handle. In the statues of VISHNU, and BALA-RA'MA, the plough in their hands is represented nearly in that manner; and, from that circumstance, BALA-RA'MA is called also HA'LA, and HA'LI, or he with the plough.

THE legend of the good *Peishé-car Brâhmen*, is found in Major MACKENZIE'S historical sketches of the ancient Kings of *Warangola*,

otherwise, I should not have presumed to insert it here. It is interwoven with the history of the first Kings of that country, and of course the compilers by no means entertained an idea, that it was anterior to the *Christian Era*.

As I was mentioning this traditionary legend to some learned *Pandits*, they informed me, that the same, or one at least very much like it, was to be found in the *Mahā-Bhārata*, the *Sahyādri-c'hand'a* a section of the *Scanda-purāṇ'a*, and in the *Bhāgavata* also. I produced the books, and they pointed out the respective pages immediately. I read the whole, and found it illustrated with circumstances of a most extraordinary nature.

In the *Bhāgavata*, and its commentary, this legend is only alluded to. In the *Mahā-Bhārata* there is a short account of the transaction; but in the *Sahyādri-c'hand'a*, the legend is drawn to a very great length,* and the principal features, and circumstances in these legends, which in reality are but one, are the following.

THERE appeared, in the *Dekhan*, a most holy *Brāhmen*, of those called *Peishē-cārū*, *Tācshacū*, *Śūdras* or handicraftsmen, and whose name was MAND'AVYAH. He proclaimed, that he came for the sole purpose of relieving the distressed; and that whatever men claimed his protection, he would readily grant it to them, and even lay down his own life for them. Very many of all descriptions came accordingly;

* *Bhāgavata*; Section 1. p. 13. *Mahā-Bhārata*; Section 1.

and among them a thief, who being pursued by the officers of justice, claimed his protection, which he readily granted, and was really crucified in his room. He then ascended into heaven, and took the thief along with him;

THIS circumstance is otherwise related in the above *Purāṇas*. A numerous banditti had taken shelter near the holy man, thinking themselves safe; but the officers of justice arriving, they were seized, and immediately crucified. The holy man was supposed to be a thief, numbered among them, and crucified also. He did not open his mouth, but remained absorbed in holy contemplation, inwardly repeating sacred names, with his arms extended, and uplifted.

WHILST on the cross, all the *Rāhis* crowded from all parts of the world, in the shape of birds, to see him, and comfort him. A certain thief, who was also covered with leprosy, and, in consequence of it, deprived of the use of his limbs, was accidentally dropped at the foot of the cross, wrapped up like a child in his swaddling clothes. The man, after remaining there some time, was perfectly cured; and, being irradiated, repented, lived to a good old age, and obtained eternal bliss. A thick darkness overspread the face of the world; and the animated creation was in the utmost distress, and consternation. The holy man, being afterwards taken down from the cross, descended into hell, and there encountered, and overcame, death, or *YAMA*. Then a general renovation of the world took place, under the inspection of *BRAHMA*. The holy man, from his having been crucified, was ever since called '*SULASTHA*, or, the cross-borne, which is synonymous with

SA'LIVA'HANA. If we prefix, to this abstract, the legends concerning the infancy of **SA'LIVA'HANA**, and the era of his manifestation, we shall have the principal circumstances of the life of our Saviour, either from the true Gospels, or from the Apocryphal ones.

THERE are two singular circumstances in these legends: the first is that it was decreed, that the iron should pierce the body of **MAND'AVYAH**, as well as that of **CRISHNA**, because both were accursed, though guiltless. The second is that neither **CRISHNA** nor **MAND'AVYAH** died, the first in consequence of his wound, nor the second after being crucified: and both are represented as contemporaries.

THE *Christian* sectaries in the first ages, and **MUNAMED** himself with the *Muslems* to this day, highly reprobated the idea of **CHRIST** dying upon the cross, and even considered it almost a blasphemy. **CRISHNA**, though guiltless, was involved in the general curse denounced against his whole tribe, by which all the *Yadus* were doomed to be pierced with the iron, and to die. Neither **CRISHNA**, nor **MAND'AVYAH** could die; but they were to be brought, as near as possible, to the point of death, that the words of the *Muni* should not be done away. Besides, **YAMA**, as King of death, has a claim upon every individual, and with regard to some exalted characters, he must be satisfied, and a compromise must take place. But another difficulty arises; **YAMA** cannot condemn a man to die, without some reason; it would be unjust in him, who is also King of justice. All incarnations of the deity, however dignified, and exalted, such as that of **CRISHNA**, which is considered as the first in rank, and the most perfect of all; all manifestations of

the deity, I say, on becoming flesh, are more or less subjected to the infirmities, and even the weakness of human nature, being certainly involved, in some measure, in the gloom of *māyā*, or worldly illusion. In this case, YAMA is always sure to find some taint of negative guilt, in consequence of which, he can, at least, bring them to death's door: and it was found that MAND'AVYA, in his infancy, had destroyed a feeble and innocent insect, by piercing him, either with a needle, or with a blade of grass. This fatal needle was the only thing, that CHRIST ever possessed in this world; yet, however insignificant in itself, it was certainly a worldly implement, and it prevented his admission into heaven, according to *Muslemans* in *India*; neither will he ever be admitted; till after his second manifestation, at the end of the world. Others say, that he was admitted into the fourth only, instead of the highest heaven, on that account.

We read in the *Mahā-Bhārata*, that there was a most holy and pious *Brāhmen* called MAND'AVYA, who was making *tapasya* with his arms uplifted, absorbed in holy contemplation. Some *lōptras*, *lifters*, or *thieves*, placed themselves near him, with their stolen goods, thinking to be safe; but the King of that place, who was in pursuit of them, ordered them to be crucified, and as the holy man gave no answer, he was numbered among them, and crucified with the rest. In the night time, all the *R̥shis*, hearing of his misfortune, flocked from all quarters, in the shape of birds, to comfort him. In the mean time the thieves died on the cross; but the holy man remained meditating, without uttering a word, with his arms uplifted. The King, hearing this, immediately saw that MAND'AVYA was a *R̥shi*, and hastened to take

him down from the cross, and then falling at his feet, humbly begged his forgiveness. Immediately the *Rishi* descended into hell, and asked the King of death, and of justice, how he could allow him to be crucified, as he was guiltless. YAMA answered, that in his infancy he had pierced an innocent insect with a blade of grass. The *Rishi* said, that at that age, he could not incur guilt of any kind, and of course drove him out of the infernal kingdom; and willed, that he should be born of the womb of a woman of the *Sudra* tribe. This was effected in the house of VICHITRAVIRYA, who was dead; but DWAIPAYANA or VYASA, raised seed to him, through his wife, and a handmaid. YAMA was born of the latter under the name of VIDURA, and remained on earth 100 years, during which the government of the infernal regions was committed to ARYAMA, according to the *Bhagavata*. In the *Sahyadri-chand'a*, we have a most prolix account of this momentous event, which I shall give in abstract.

• WHATEVER man listens, with due attention, to this legend, his sins shall be remitted. In the forest of *Dandaca*, in the *Sahyadri* mountains in the *Dekhin*, on the banks of the river *Pran'ita*, was the hermitage of MANDAVYA, a most holy *Rishi*, most benevolent, and no acceptor of persons. There he remained, between five fires, entirely taken up with holy contemplation, and inwardly repeating sacred names. A numerous banditti, with the goods they had stolen, being pursued by the King, at the head of a strong party, took shelter near the holy man. As soon as the King came, he ordered them all to be crucified immediately; and the holy man was numbered among them; and

from his being crucified, he was, from that time, surnamed *Sulastha*, or the cross-borne.

‘ THERE lived in the adjacent village a most virtuous, and faithful wife, who was married to a thief, and a debauchee, whose whole body was covered with leprosy: some of his limbs had dropped, and others were deprived of motion. He was very fond of gambling, and his faithful wife used to carry him, wrapped up like a child in swaddling clothes, to a gambling house, where he spent a great part of the night, when she carried him back in the same manner. It was midnight, and the night very dark, she passed near the cross, and stumbling against it, she shook it violently, and let her husband fall at the foot of it. The holy man being put to great pain, said to her, at the rising of the sun thy husband shall die. Such are the powers of a virtuous and faithful wife, that she forbade the sun to rise. A thick darkness covered the face of the world, and lasted 10,000 years, during which the gods and the created beings, were in the utmost distress and consternation.

‘ ALL the gods, with *SIVA* and *BRAHMA*, went to *VISHNU* the preserver, who resides on the northern shores of the *White Sea*, that is to say, in the sacred isles in the west. *VISHNU* was very much embarrassed, as he did not wish to reverse the decrees of either of two such exalted characters. After some consideration, he said to the gods, “*ANASU’YA* the wife of *ATRI* is most virtuous, and faithful; go to her, and prevail upon her to go, and speak to the wife of the thief; when they will together come to some arrangement.” *ANASU’YA* consented, and after having discussed the matter with her, every thing was settled.

In her character of a virtuous and faithful wife, she ordered, that the husband should live; and GUN'AVATI, the thief's wife, ordered the sun to rise. Still it was necessary to satisfy the holy MAND'AVYAH, whose words could not be done away. They agreed, that in future, all married women, when it is dark, or night, should remain as in a state of widowhood, taking off their nuptial dress, and ornaments. The benevolent MAND'AVYAH was easily pacified, the sun rose as usual, darkness was dispelled; the holy man, who had remained all the while absorbed in contemplation, with his arms uplifted, descended from the cross; the leper, at the foot of it, was cured of his disease, lived to a good old age, and obtained eternal bliss; and the two virtuous and faithful wives were crowned with honor and glory. The air was filled with numberless choirs of celestial minstrels, singing heavenly strains, and the whole ~~was~~ ^{was} ~~enriched~~ ^{enriched} with a shower of flowers from on high. In the mean time, the animated beings had all perished; and BRAHMA was directed to proceed immediately to a new creation, and a general renovation of the world took place.

II. CHRISTIANITY, certainly, had made a great progress in the *Peninsula*, even at a very early period. The venerable PANTÆNUS of *Alexandria* visited *India*, about the year 189; and there found *Christians*, who had a copy of the Gospel of St. MATTHEW in *Hebrew*, which he carried to *Alexandria*, where it existed in the time of JEROME. FRUMENTIUS, the Apostle of *Abyssinia*, who had resided a long time in *India*, and spoke the language remarkably well, preached the Gospel in the southern parts, where he had great influence, and was highly

respected, having been for many years prime minister, and regent of one of the Kings, during his minority. There he converted very many *Hindus*, and built many churches, and then went to *Abyssinia*. He came to *India* with his brother *Adesius*, along with their paternal uncle, a native of *Tyre*, who was a *Christian*, and a very learned man. He travelled into the interior parts of *India*, as a philosopher; and having satisfied his curiosity, he re-embarked, on his way back, with his two nephews; but, happening to put into a certain harbour, in order to get a supply of water, they were, at their landing, suddenly attacked by the natives. Many perished, and the rest were carried into captivity. Among the former was the uncle; but his two nephews were presented to the King, who took particular notice of them, and they were afterward raised by him to the first dignities of the state. They obtained leave to revisit their native country, when *FRUMENTIUS* was ordained a bishop, and in that character went back to *India*. At the council of *Nice*, in the year 325, the *Primate* of *India* was present; and subscribed his name. In the year following, *FRUMENTIUS* was consecrated *Primate* of *India*, by *ATHANASIUS*, at *Alexandria*. He resided in the *Peninsula*, and the *Christians* there had always a bishop, called the *Primate* of *India*. The *Christian* religion made also some progress, in the north of *India*. *MUSEUS* bishop of *Aduli*, on the *Abyssinian* shores, visited the northern parts of *India*, in the latter end of the fourth century, in company with the famous *PALLADIUS*, a Goth from *Galatia*. When they arrived on the borders of *India*, they were both disgusted with the climate. *PALLADIUS* went back, but *MUSEUS* proceeded to the lesser *Boc'hara*; where, it seems, he was.

more successful. Yet there was, at *Sirhind* or *Scrinda*, a seminary for *Christians*, in the sixth century: for, in the year 636, two Monks, who had long resided there, returned to their native country; and being at *Constantinople*, the Emperor JUSTINIAN sent for them, to inquire into the nature, and origin of silk, and he prevailed upon them to go back to *Sirhind*, in order to bring from thence the eggs of the real silk butterfly.

THEOPHILUS, the famous *Arian* bishop,* was a native of *Divus*, now *Diu* in *Gujrât*; and, as he was remarkably black, he was surnamed the Blackamoor. His *Hindus* name was probably DZO PA'L, perfectly synonymous with THEOPHILUS in *Greek*. He flourished in the times of the great CONSTANTINE, and of his sons: and he had been sent to *Constantinople* with others as hostages. From this circumstance it appears, that the inhabitants of *Gujrât*, who have been always famous as pirates, had ill used the *Roman* traders. There was a great trade carried on, at that time, to *India*, by the *Romans*; and there was an annual fair held at *Batné*, for the vent of *Indian* and *Chinese* commodities, and there was a great concourse of merchants, many of whom were settled there. It was situated at some distance from the eastern bank of the *Euphrates*, and nearly in the same latitude with *Antioch*. He was very young, when he was sent to *Constantinople*, where he studied, became a *Christian* and embraced a monastic life. He was afterwards ordained a bishop, and sent to *Arabia* by CONSTANTIUS, in order to promote the interests of the *Christian* religion. He met with great opposition.

* See Philistorgius, Sozomenes &c.

from the *Jews*, who were very numerous in that country; but succeeded at last, and built three churches, for the benefit chiefly of the *Roman* traders. One was at *Taphar* or *Tapharon*, now *Dafar*, and the metropolis of that country: the second was at *Aden* near the straits of *Babelmandel*, and the third near the entrance of the *Persian Gulf*. From thence he went by sea to *Diu*, his native country, visited several parts of *India*, comforting the *Christians*, introducing wholesome regulations, and spreading the errors of *ARIUS*. He thence returned to *Antioch*, according to *SUIDAS*, where he lived a long time highly respected. He accompanied afterwards *CONSTANTIUS GALLUS* into *Germany*, as far as *Petavium*, now *Pettaw* in *Stiria*, in the year 354.

MARUTHA, a *Hindu* and a bishop of *Suphara*, now *Sufferdam*, assisted at the *Synod* of *Sides* in *Pamphylia*, in the year 383. He was afterward translated to the bishoprick of *Meyaserkin*, on the borders of *Mesopotamia*, when *YEZDEJIRD I*, King of *Persia*, charmed with his piety, was very near becoming a *Christian*; and *CHRYSOSTOM* speaks highly in favour* of our bishop. According to the *Notitia* of *NILOS DOXOPATRIUS*, the *Greek* Patriarch of *Antioch* ordained a certain *RAMOGYRIS* Metropolitan of *India*: and, from his name, there is every reason to believe, that he was also a native of *India*, where the appellation of *RA'MA-GIR* is by no means uncommon. *COSMAS INDICOPLEUSTES*, who visited *India* about the year 522, says, that there were churches, and priests, with the whole liturgy, in *Ceylon*: also on the

* Photii Biblioth. p. 38 &c.

Malabar Coast, and in the north west of India. In these countries, says he, there are a vast number of churches.

THE Mission of St. THOMAS to *India*, with the surprising progress of the *Christian* religion, are facts, in my humble opinion, sufficiently authenticated. JEROME, who died in the year 420, speaks of the Mission of St. THOMAS to *India*, as a fact universally acknowledged in his time: but I must refer the sceptic reader to the works of FABRICIUS, and ASSEMANNI; unfortunately not to be procured in this country. But the learned history of the *Anglo-Saxons* by Mr. TURNER will abundantly make up for this deficiency, in his dissertation on the embassy of the bishop of *Shireburn*, sent by the great ALFRED, to the tomb of St. THOMAS in *India*. That the holy Apostle suffered martyrdom in *India*, is sufficiently proved: but, at the same time, it is certain also, that his body was afterwards carried back, and deposited at *Edessa*, as attested by RUFINUS, who went to *Syria* in the year 371, and remained there twenty-five years. The place, however, where he was first entombed, became a famous place of pilgrimage, where probably, they kept some particles of his body, either true or false: but the chief relic was his blood; which had impregnated the spot, where he suffered martyrdom. This earth was carried in small quantities, all over the *Peninsula*; and, being drunk with water, proved most efficacious, in all sorts of diseases, and complaints. His tomb at *Edessa* was probably destroyed, during the wars of the Emperors of the west with the *Persians*; or afterwards by the *Muslimans*.

In the sixth century, GREGORY of *Tours*, the father of French his-

tory, became acquainted with a respectable man, called THOMAS, who had visited the tomb of St. THOMAS in India. In the ninth century, SIGHELM, bishop of *Shirburn*, was sent there also by ALFRED, in consequence of a vow. Now, these two clergymen were too orthodox to worship the tomb and relics of an heretick, a Nestorian of the name of THOMAS, as has been supposed by many; and they were too near the time, in which he lived, to have been imposed upon. The two *Muslemans*, who visited that place soon after SIGHELM, mention the church of THOMAS, on the *Coast of Ceremandel*, as well as MARCO POLO about the year 1292, long before the *Portuguese* had found their way to *India*. M. POLO says, that *Christians* and *Muslemans* were very numerous in the *Peninsula*.

THE place, where he suffered martyrdom, that is to say, the country about *Madras*, was seldom visited by merchants, as there was no trade. His body, or tomb at least, was in a small city of that country; and the native *Muslemans*, and *Christians*, held it in great veneration. Pilgrims, from distant countries, came to visit this holy place; and the earth impregnated with his blood, was given in some beverage, to sick and infirm people; and miracles were often performed there. In speaking of *Aden* in *Arabia*, he informs us, that "St. THOMAS was said to have preached there, before he went to *Musaber* in *India*, where he suffered for CHRIST, and there reposes to this day his most holy body; in that country, (*Musaber*) the *Christians* are good soldiers, and remarkable for their honesty."

THE inhabitants say, that the holy Apostle was a great prophet, and they call him AVARIMA, which in their language signifies a holy and

pious men. As *Markus Polo* has given us the meaning of the word *Audriia*, it is very easy to refer it to its pure and original form, which is *Av-Aryya*, in *Sanskrit*; and, as he says, that the *Christians* there were highly respected, being good soldiers, and, above all, good and holy men, remarkable for their integrity, they were certainly *Av-Aryyas*, or *Aryyas*, as well as their holy Apostle. The word *Audriia* is derived from the *Sanskrit* compound, *Av-Aryya*, from two words perfectly synonymous, *Ava*, and *Aryya*. The first is rendered in lexicons, by *'Sudd'ha*, or *Pavitra*, equally implying holiness, and purity. It is often used in composition, where it enhances the sense. One of the titles of *BUDDHA* is *AVA-LO'CITA*, or *AVA-LO'CA-NA'T'H*, the holy sovereign of the world: *AVA-RO'HA* or *A-RO'HA*, well seated. This word is very often pronounced *AAA*, and more particularly so, in the S. W. parts of *India*; and the same *M. Polo* mentions in the country of *Lacé*, a race of most pious men called *Abraiani* and *Abraiam* in the *M.S.S.* But the editors thought proper to write that word, *Abrajimim*; because they conceived that they were *Bráhmans*. But it is much more probable, that it is the same word with *Audriiam*, or *Audriia*, which he mentioned before. *Ab-Aryya* in the objective case, in the singular number, makes *Ab-Aryyam*, and *Ab-Aryyan* in the plural, in the first case. These *Abraiani*, says he, have in abhorrence lying, theft, and cheating. They marry but one wife, and abstain from intoxicating liquors, and flesh. They eat moderately, and their fasts are long, and most severe: otherwise, says he, they are idolaters. He then mentions other idolaters in that country; but from the context, entirely different from the *Ab-Aryyas*: who, it seems, were only degenerated

Christians, who had in great measure relapsed into the errors of their ancestors, and of their contemporaries.

From the situation, assigned to the country of *Lac*, by M. POLO, these good people, with the most austere manners, called 'Aryyas, seem to be the same with the holy and rigid penitents, and anchorets mentioned in the third century by PROLEMY in the country of *Ariaca*, a derivative form from 'Aryya, under the name of *Tabassi Magi*, from the Sanscrit *Tapaswi*, pronounced *Tabásá* in the *Tamuli Dialect*; and which signifies contemplators, and by implication men performing austere penances, like the anchorets in the wilds of *Thebes*, and *Tabenna* in *Egypt*; which denominations are probably derived from *Tapa*, austerities, and *Tapó van*, the wilderness of austerities. The 'Aryyas are mentioned in the *Brahmán'dā-purána** as a powerful tribe of foreigners (*Mléch'ha*) living among the mountains of the *Dekhin*.

PROLEMY says, that *Ariaca* belonged to the *Sadnoi*, a strange name certainly for a tribe. I suspect however, that it is derived from the Sanscrit *Sád'hana*, and that the 'Aryyas were thus denominated by the native *Hindus*, in the same manner, that the *Portuguese* were styled in *Bengal*, *T'hac'hurs*, rulers or lords, and the *English* all over *India* are called *Sáheb-lócar*, or *Sahé'b-lóguet*, and the most apposite Sanscrit expression for the above epithets is *Sád'hana*: the *English* are often styled by learned *Pandits*, *Sád'hana-Engriz*: and the famous *BHO'JA* is often called *Sád'hana Bhója*. M. POLO mentions also *Abraians* on the *Pearl*.

* Section of the Earth.

Fishery Coast; these were consulted by the fishermen; but, he says that they were bad men, and great forcerers; and their descendants, to this day, are not much better. According to the acts of ST. THOMAS, and other notices, the holy Apostle embarked at *Aden* in *Arabia*, in his way to *India*, where he landed at a place called *Halabor*, and afterwards *Salo-patan*, synonymous with *Salo-phur*, or *Sala-buram*, *Hala-buram*; and now *Cranganor*. He was well received by MASDEUS, called also SEGAMUS, King of that country, whose son ZUZAN he converted, and afterwards ordained him a Deacon. The Apostle, long after, suffered martyrdom, at a place called *Calamina*; known afterword by the name of *Mahar-pur*, or the city of *Pea-cocks*, from the *Sanscrit* *Meyur-pura*; and the same which is called *Mahar-pha* by *PROTOMEY*. Its present name is ST. THOMAS, called by the *Arabs*, during the middle ages, *Be-tuma*, or *Bett-Thama*, the house or church of THOMAS.

MASDEUS, the name of the King, who kindly received ST. THOMAS, ZUZAN that of his son, and SEGAMUS his own surname, are all *Hindî* denominations. MASDEUS is for BASDEO, the usual pronunciation of VA'SU-DE'VA in the spoken dialects. SEGAMUS is for SUGAMA, synonymous with SUGAT, and shews that he was a follower of BUDDHA: and SANGAMA, even now, is not an uncommon name in *India*, particularly in the *Peninsula*. ZUZAN is for SAJANA, or SEZAN, as written by Father *GIORGI*. It is the name of the father of BUDDHA, called also AJANA, by the *Paurānics*; and the disciple and successor of MANES, who pretended to be an incarnation of BUDDHA, was called SISINIUS.

THE place of his martyrdom is called *Calamina* by HIPPOLYTUS, according to MR. TURNER. *Calamina* is a *Tamuli* denomination, and literally signifies *earth* and *stones*, alluding to the nature of the soil. It is synonymous with *Mana-pura*, which signifies the same thing, according to F. BARTOLEMEO, a missionary, acquainted with both the *Sanscrit* and *Tamuli* languages; but I by no means conceive them to be the same place. *Calá* or *Cala* in *Tamuli* signifies a *stone*, or *Gallen* in *French*, and *Mána* *earth*. Thus, *point Calaman*, the true name of which is *Calá-médu*, signifies the *stone hill*. There were two bishops of the name of HIPPOLYTUS, one of whom resided in *Arabia*, and they were contemporaries. The latter probably wrote the treatise concerning the peregrinations of the Apostles, and died, A. D. 230.* DOROTHEUS, another bishop, born in the year 254, wrote also on the same subject; and some fragments of his work are to be found at the end of the *Chronicon Paschale*. There he asserts, that St. THOMAS died at *Calamita* (*Calá-médu*), which is synonymous with *Calamina*, or nearly so.

SOME *Manicheans*, at a very early period, went to the *Malabar Coast*: for, according to LA CROZE, in his history of *Christianism in India*, the *Christians* of that country said, that, before they had submitted to the jurisdiction of the *Catholicos*, or *Nestorian Patriarch*, and of course, before the arrival of MAR-THOMAS, there came into their country a certain MANNACAVASSAR, who preached a new doctrine, seduced the people by his prestiges, and introduced his errors. LA

CROOK did not understand the meaning of the word *MANNA-CAYASSAR*; but suspected that he was a *Manichean*. He was called, by the people of the *Dakshin*, *MANI-CAYISSAR*, which signifies the bard, the prophet *MANI*. *CAVISSAR* is derived from the *Sanscrit* *CAVI*, poetry, songs, and *Is'wara* lord, chief: *CAVIS'AR*, for *CAYVES'WARA*, signifies the lord of the song, or the chief bard, and is used in that sense in the *Peninsula*, according to Major *MACKENZIE*.

THE two *Musleman* travellers in the ninth century, and the *Nubian* Geographer, probably on their authority, declare, that there were many *Christians*, *Manicheans*, *Jews*, and *Muslemans* in *Ceylon*: and that the King encouraged their public meetings, and that the learned *Hindus* of that country used to frequent them; and that the King kept secretaries to write down their respective histories, and the exposition of their doctrines and laws. These two travellers were in *Ceylon*, at that time; and these meetings, as well as the places at which they were held, are called *Charchita* by the *Purânias*, and appointed for the purpose of making *Charchá*, search or investigation, into new dogmas, and opinions, which began to disturb the peace of the country.

THE *Muhamedans* in *India* acknowledge the early establishment of the *Christians* in that country. *FARISAKA*, in his general history of *Hindustan*, says: "Formerly, before the rise of the religion of *Islam*, a company of *Jews* and *Christians* came by sea into the country (*Malabar*) and settled as merchants or *Pishcáras*. They continued to live there until the rise of the *Musleman* religion."*

* *Asiat. Res. Miscell.*, p. 151.

III. THE decline of the *Christian* religion, in *India*, must be attributed, in a great measure, to the progress, equally rapid and astonishing, of *Islamism*, in *Syria*, *Persia*, *Egypt* and *Arabia*. The *Christians* in these countries, being in a state of distraction, no longer sent pastors to *India*; as we are informed in a letter written in the seventh century, and still extant, according to Mr. TURNER. There we see the *Nestorian Patriarch* JESUJABUS of *Adiabene*, reproaching the *Metropolitan* of *Persia*, with having shut the doors of the episcopal imposition of hands, before many people of *India*; that the sacerdotal succession had been interrupted, from the maritime borders of *Persia*, down to *Colow*, or *Coilan*, a space of above 1200 *Farsangs*. This agrees with what is related by *Musleman* writers, who say, that in the reign of the CALIPH ABDUL-MALEK, in the latter end of the seventh century, the *Christians* of *India* sent to SIMON, the *Syrian* and *Jacobite Patriarch* of *Alexandria*, requesting that he would send them a bishop.*

THE bulk of the *Christians* of *St. Thomé*, according to Mr. WREDE, like the *Aryyas*, consisted of converts from the higher classes; and they were nearly upon the same footing with the *Bráhmens*, and *Nairs* or nobles. They were originally much respected by the *Hindus*, and native princes; and they considered themselves equal in rank with the *Bráhmens*, and *Nairs*, and claimed the same exemptions and privileges, which were granted to them. Many amongst them, preserve till now the manners, and mode of life of the *Bráhmens*, as to personal cleanliness, and abstaining from animal food: and the *Roman* missiona-

* See D'HERBELOT'S *Biblioth. Orient.* v. *Hend.* u *Sind* p. 415.

nics, in general, adopt the same regimen, in order to gain credit among them.

THESE Christians were then very properly denominated *Aryyas*, and *Tacshacas*, or *Paishadra Bráhmens*. These and their Kings probably introduced the Christian Era into their country: but, in the same manner, that their facility, and their power in *Játi* are foretold in the *Purán's*, their fall is equally mentioned: When, says the compiler of the *Váyu-Purán'a*, their time is come, the *Aryyas* will pass away, like the rest.

THESE good *Aryyas* are called *Sálwas*, *Sálavas* and *Sályas* in the *Cumáricá-chán'da*. These three forms are regular, but the last, according to Mr. JOINVILLE, prevails in the *Dekhin*, and *Ceylon*; where they are called *Sálé*, *Sályas*, and *Chályas*, because, I suppose, they were the followers of *SA'LA*. They are called also in that country, *Saca-Rájá-vánsas*, and *Sála-vánsas* in the western parts of *India*: They are now followers of *BUDD'HA*; and in the *Peninsula* the *Christians* are included in the general denomination of *Bauddhists*, and their divine legislator is considered as a form of *BUDD'HA*.

THE chief of the *Sályas*, or *Aryyas*, is called *Arya-sira* by the followers of *BUDD'HA*, a *Sanscrit* compound implying as much. He was overthrown by *BUDD'HA*, and yet he is called *Pre-Aryya-sira*, or *Pre-Aria-seria*, the venerable *Sire*, or chief of the *Aryyas*.

THE *Manicheans*, and the *Mislemans*, on the authority of the *Apocryphal Gospel* of the childhood of *CHRIST*, and that of *St. BAR.*

MYDAS, of which they have copies in *Arabic*, *Persian* and even in the western languages of *Africa*, represent CHRIST, as the most complete *Tacshaca*, that ever existed. He was not only an excellent carpenter and statuary; but he was deeply skilled in the combination of all sorts of colours. For this reason, the ingenious H. SYKK, who has given us a translation of the Gospel of CHRIST'S childhood, from the *Arabic*, and some fragments of the original in *Greek*, says, that dyers in *Persia*, consider CHRIST as their patron. It seems indeed, that the greatest part of the Christians, in *Arabia* and *Persia*, were handicraftmen: and that they were accordingly called *Peishe-cáras*, both because they were really so, and because they were the followers of the great *Tacshaca* or *Peishe-cára*. According to D'HERBELOT, the disciples of CHRIST were called in *Persian*, and *Arabic*, *Kassárin*s or *Kassárun*s, and *Haváryun*s, that is to say, fullers and bleachers: and the priests of the Christians of St. THOMAS are called *Kassanars* to this day, perhaps for *Kassárun*s.

MR. JOINVILLE, in his account of *Ceylon*,* mentions the arrival of numerous families of these *Peishe-cáras*, *Peish-cárs*, into that island; and declares, that they were all artificers, and handicraftmen, as implied by their name, which is truly of *Persian* origin; though used all over *India*, in the northern parts of which, it is generally pronounced *Peishe-Ráz*. According to T. HYDE, the *Parsis* in *India*, are all artificers, and those in *Kirman* deal chiefly in woollens.

THERE were formerly *Brahmens* in *India*, says the same gentleman, who were handicraftmen, such as weavers, weaving stuffs variegated

* AS. RES. vol. III p. 433. 443.

With gold and silver, and of divers colours. These were called, from that circumstance, *Peish-cari-Brahmens*. But they could not be Followers of BRAHMA; for the employments of Weavers, and dyers, are absolutely incompatible with the sacerdotal class: in extreme distress *Brâhmen* may sell stuffs, but even then, under very peculiar restrictions. They might however have called themselves *Brahmens*, at least their priests, without any impropriety; for every priest is really a *Brâhmen* in his own religion. A few individuals might have become weavers; but then, they would lose their cast, and it is impossible that a numerous body of *Brâhmens* should follow that profession. It is then much more probable, that they were not strictly speaking *Brâhmens* of Hindu extraction; but the followers of a new religion, introduced by foreigners, the disciples of a *Peish cāra*, and themselves *Peish-cāras*, or at least many of them.

Their first arrival in Ceylon, happened nearly about 1845, after the famous war between RA'MA and RA'MANA, called the *Râvana-Yuddha*. RA'MA lived thirteen generations before the *Cali-yuga*, answering to about 400 years; and the *Cali-yuga* began 1370 years before CHRIST. The completion of the 1845 years will then fall about 77 years after CHRIST. VIJAYA, according to Captain MASON, was the first King of Ceylon, after this period of 1845; during which, the island was desolate, and overrun by Demons. Then, says the same gentleman, the Christian natives insist, that this King VIJAYA was crowned 77 years after the birth of our Saviour. This King VIJAYA was not a *Baudhist*: for the ninth King after him was the first who embraced that religion; and his name was DEVENI-PATI. All the missionaries to

Chins, were really *Tassacae*, or *Peish-cára-Bráhmens*, in the strictest sense of the word, as well as the pious *Moraxians*: and PAUL the Apostle was a *Tassacae* and a *Peish-cára-Bráhma*: and, by the account of Mr. WRENDE in his narrative of the *Ekristians* of *St. Thomé*, they were formerly *Prish-cáras*: for, says he, they were in fact the only, or at least, the principal merchants in the country, till the arrival of the *Arabs*.

“THE ingenious Mr. JOINVILLE, on the authority of several treatises in the *Magad’hi* language, the names of which he mentions, says, that there were even Kings among these *Peish-cára-Bráhmens*, in the *Peninsula*, to the number of thirty-five: from the context, it appears, that some were in a collateral, and others in a successive line. The names of their kingdoms, or rather their *Metropolitan Cities*, were *Solo-patan*; *Mahá-pattan* (now *Pattan*, the *Baitana* of *PTOLEMY* in the *Dekhin*, on the banks of the *Gódáveri*, to the southward of *Dowletabad*); *Curu* (now *Gauri*, or *Coyr*); *Gadahare* (*Gau’da*); *Máconda*, (now *Mahá-cun’da-pilli*); and *Cári*. This is confirmed in the *Bhágavat*, *Váyu*, and *Brahmán’da-purán’as*, in which it is declared† that *Aryya*, or *Saca*, and *Sálvas* was the name of a dynasty of Kings in *India*; and who were to be immediately followed by the invasion of numerous swarms of other foreign tribes; and of the dynasty of these *Sacas*, there were five and twenty Kings, according to the *Purán’as* in the chapters on futurity.

SOLO-PA’TAN was a sea-port town, according to *COSMAS INDOPLEUSTES*, about the middle of the sixth century, on the *Pepper*, or *Malabar*

† An. Res. vol. vii. p. 443.

† In the Sections on Futurity.

Coast. There were, says he, five sea-ports famous for trade, *Parti*, *Mangerouth*, *Salou-patna*, *Nalo patana*, and *Poudu-patana*; and all these names are truly *Indian*. There are several places in the *Peninsula*, called *Parti-guddy*, or fort of *Parti*. *Mangerouth* seems to be *Mangalore*, and *Nalo-patana*, *Nali-suram*; *Salou-patana* is called *Sooloo-patonow* by the people of *Ceylon*, and had Kings of its own of the *Peshe-caré-Brâhmen* tribe, or *Christians*.

S'A'LO-PATAN, otherwise *'Sâlo-buram*, and *'Sâlo-pur*, is the same with *Hâla-bor*, where *St. THOMAS* landed, and its present name is *Cranganore*. There he converted *'SAJANA* son of the King of that country.

We read in the history of the *Christians* of *St. THOMAS*, that they had *Christian Kings* of their own; the first of whom, was called *BALIARTE'*, from the *Sanscrit* *Bali-arhat*. After several successions, one of these *Christian Kings* dying without male issue, adopted the King of *Diamper* for his son, according to the custom of the country, though he was a heathen, and appointed him his successor.

THAT a society of *Peishé cāras*, weavers, and handicraftsmen, however numerous, should have Kings of their own, is inadmissible; unless they were upon such a footing, as the *Christians* were formerly in the *Peninsula*. *St. THOMAS* converted the son of the King of some country on the coast of *Malabar*; and the *Purānās* declare, that there was a dynasty of *'Aryya Kings*.

THE name of *Avāryya* is not totally unknown in the *Peninsula*: they have still in great veneration, a certain Sibyl of divine origin, most pi-

ous, and good, called 'AVYA'R ; and who lived in the ninth century. A translation of some of her moral sentences, is inserted in the seventh vol. of the Asiatick Researches. It seems she was conversant with the *Christians* of that country ; for among her proverbs, there are some, that are far from being in the usual style of the *Hindus*.

THE descendants, or followers, of 'SA'LA-VA'HANA are mentioned in the commentary upon the *Calpa-druma*. In religious matters, and particularly in the east, they generally call the followers of any reformer, or legislator, his descendants. In the above commentary 'SA'LA-VA'HANA is declared to be a *Jaina*, meaning, either a follower, or a form of JINA. He is called there also, a 'Srāvaca, or 'Sāvaca ; that is to say a *Peish-cára*. In the western parts of *India*, as in *Gurjar'át*, they call all tradesman, banyans, &c. 'Sāvacas, or 'Sábacas. The famous CALICA'CHA'RYA is supposed to have visited 'SA'LA-VA'HANA, at *Pratish'tána* in the *Dekhin* ; and, according to the above commentary, he was born 993 years after the ascension of JINA, or 43 years B. C. He travelled all over the *Peninsula*, teaching, and explaining, the doctrine of JINA ; and particularly among the 'Sábacas. He is supposed to have taught 'SA'LA-VA'HANA some peculiar rites, to be observed at the full, and new moon ; which, he promised, he would enjoin his descendants, or followers to observe. The posterity of a 'Sábaca, or *Peish-cára*, particularly in *India*, were necessarily *Peish-cáras*, and 'Sábacas. A patronymic denomination was also given to them ; for they are called 'Sál-was, 'Sálavas, and 'Sálbas in the *Cumáricá-c'handa*, answering to the *Arabic* expression, of *Ashab-al-Sálib*, or *Salb*, the followers of the cross, or of him, who was crucified, According to A. ROGER, there is still

in the *Dekhin* a considerable tribe of men called 'Śālavādīs, from the Sanscrit 'Śālavādicas, the 'Śālavas or followers of 'SA'RA.

IN the *Vāyu-purāṇ'a*, they are called 'Sacas, and in that passage, this name is used in the room of 'Aryyā to be found in other *Purāṇas*; and it is declared there, that they would appear with the *Andhras* and *Pulindas*; the dynasty of the first began in the year 191 after CHRIST: and it is obvious from the context, that the dynasty of the 'Sacas, 'Aryyās, or 'Śālvās was contemporary with those of the *Andhras*, and *Pulindas*; though we cannot fix precisely the time when it began. By *Pulindas*, they understand dynasties of Kings from the lowest and vilest classes in *India*.

THE descendants, or followers of King 'SACA, are called by Mr. JOINVILLE, and Captain MAHONY, 'Saca-Rājā-Vānsas, a true Sanscrit expression, implying as much: and we have seen, that, there are still in the *Dekhin*, and *Ceylon*, some families or tribes so called to this day. I was greatly surprised, sometime ago, to hear from most respectable *Pandits*, that there was in the district of *Benares*, and in the province of *Oude*, a tribe of *Rājaputras*, who boasted of their descent from 'SA'LI-VA'HANA; and that the chief of that tribe was considered as a living hereditary deity, and a form of VISHNU, like their Sire 'SA'LI-VA'HANA. What is still more surprising, is that this chief does what he can to conceal his divinity, and to make people believe, that it is not so. But in despite of his endeavours, some peculiar circumstances will occasionally betray him; and such an instance, it is said, happened last century. They are descended more probably from the followers of

another 'SA'LIVA'HANA, a *Manichean*, or MANES himself, as I observed before.

As these *Rajaputs* call themselves *Vais'yas*, synonymous with 'S'rāvaca or tradefinan, it seems, that they originally followed that profession. Probably some will say, that if the 'Saca-Rāja-Cumāras, had been once *Christians*, they must of course have lost their cast. This might be the case now : but, I do not believe it was so formerly ; and then, the *Purān'as* afford us immediate remedy, for in the chapters on futurity, it is declared, that the Kings of *Magad'ha* would raise men of the lowest classes to the rank of *Brāhmens*, and other superior casts; exactly like JEROBOAM, and other Kings of *Israel*. This prophecy was to take place, after the fall of the *And'hra* dynasty in the seventh century.*

BESIDES, a whole district, a whole tribe, might embrace another religion, without losing cast; the full exercise of its privileges being always confined to themselves. For we must not think, that persons of the same cast, will communicate one with another all over *India*, and eat together, or of food dressed by another. The communication is confined to a few families in their neighbourhood, whom they know to be strict observers of the rules relative to their cast. The rest of the tribe are in a great measure outcasts to them. This almost incredible adherence to the punctilio of casts, was in a great measure owing probably to the rapid increase of the religion of BUDD'HA, then afterwards of that of CHRIST, and MUHAMED, and of the heresy of

* See *Brahmān'da* and *Vāyu-purān'as*. Section on Futurity.

MANES, in the N. W. parts of *India*, and also on the coast of *Malabar*, and *Ceylon*. Among the *Christians* in the *Peninsula*, be they *Protestants*, *Roman Catholics* or *Nestorians*, there are *Bráhmens*, who are nearly upon the same footing with the other *Bráhmens*; and, when acquainted with them, such civilities, as are usual among well bred people, are never omitted. The *Christian Bráhmens* most rigorously abstain from beef, and animal food, though they say they can eat of it. The greatest part of the *Bráhmens* in *Persia*, *Turan*, and near *Baku*, eat beef, but never of the flesh of the cow, like many of the *Egyptians* of old. There are several of these *Bráhmens* settled at *Benares*; and they are acknowledged as such, though not much respected, being nick named *Véda brash'tas* or breakers of the *Védas*; for a *Bráhmen* may be a heretick without losing his cast, which is not so much connected with his creed as might be supposed. In short, the *Hindus* acknowledge themselves, and it appears from their sacred books, that they ate beef formerly; but they took care to inform me, at the same time, that they never ate of the flesh of the cow. It is declared, that there are no *Cshettris* now, or in other words, that the second class no longer exists. Yet those, who have been raised to that rank from the lowest classes, are treated as such by every *Bráhmen*.

WE read in the institutes of *MENU*, that all the *C'hasyas*, or those who inhabit the snowy mountains, have lost their cast. Yet they must have recovered it; for there are numerous families of *Bráhmens* in those countries, particularly in *Almorah* or *Cománh*, and much respected at *Benares*, who by no means consider the bulk of the inhabitants, who

are *Cshetris*, as outcasts. They assured me, on the contrary, that they considered them as belonging to the second class, and that they are treated as such by every *Bráhmén*, in despite of *Menu* and of the *Puránicas*.

LET us suppose some extensive district in *India* solely inhabited by *Europeans*, and that these were entirely willing to conform, in every thing, to the religion of *BRÁHMA*, and the manners of the *Hindus*. Their resolution would be highly approved of by every *Bráhmén*; and they would soon find many to officiate, and pray for them, on their being of course paid for their trouble. Let us add to this, numerous grants of land, villages, honors, privileges, and an entire submission to their will, they would soon treat them as *Cshettris*, as they do the present *Rájputs*. It is true, they could neither intermarry, nor eat with the other *Hindus*, but the four great classes never intermarry, nor eat, but with particular families of the same tribe in their own class. After a few generations, they would say of these *Europeans*, what they say of the present *Rájputs*, and *Máhrátas*, that they were not originally *Cshettris* nor *Bráhméns*, and are a spurious race. This would not do, it is true, for a single individual, who would find himself insulated, and lost entirely, unless he assumed the character of an anchoret or penitent. I had long conversations with learned *Pandits*, on the subject, and this was their opinion, and that even they might have *Bráhméns* of their own, by studying their sacred books, and obtaining the necessary knowledge, which would not be attended with much difficulty. With regard to their ancestors having ate beef, this could be no objection, as there is not a *Hindu*, whose ancestors, at some remote period, it is true, did not eat beef, and every sort of animal food, except

perhaps a few unclean sorts. Whatever man, say the learned, performs the duties (*Carma*) of a *Cshettri*, him you must consider as a *Cshettri*. But what should put an end to the controversy, at least in my humble opinion, is that the *Máhnáttas*, a numerous and respectable tribe of *Bráhmens*, and *Cshettris*, are acknowledged, all over *India*, to be foreigners from the western parts of *Persia*, who left their native country not 1200 years ago, as I shall shew in the appendix. Even though this alleged origin of the *Máhnáttas* should prove untrue, yet the universal acknowledgment of it is very much in favour of my assertion.

THE followers of BRAHMA, and those of BUDD'HA, were by no means indifferent to the progress of foreign creeds. They often ordered conferences to be held, where the principles of these religions were inquired into, the history of their legislators &c. This was practised in *Ceylon* in the ninth century, according to RENAUDOT's two *Muslem* travellers: and *Bráhmens* unanimously acknowledge, that this was their practice formerly, with regard to the *Baudd'hists*; and that these conferences were called *Charchá*; or investigation, search, *Cherche* in *French*; and that towns appointed for that purpose, were called *Charchita-nagari*, one of which is mentioned in the *Cumáricá-chanda*. "In the year 3191 of the *Cali-yuga* (or 191 after CHRIST) King *SU-DRACA* will reign in the town of *CHARCHITA-NAGARA*, and destroy the workers of iniquity." This points out a persecution in religious matters, at a very early period. These conferences ended in bloodshed, and the most cruel and rancorous persecution of the followers of BUDD'HA, even from the confession of the *Bráhmens* themselves. They were tied hand and foot, and thus thrown into rivers, lakes, ponds, and

Sometimes whole strings of them. Be this as it may, the followers of BUDD'HA did not fail to retaliate, whenever it was in their power; for Dr. F. BUCHANAN informs me, that in the *Dekhin* the *Jainas* make their boast of the cruelties, that they exercised at different times upon the *Brâhmens*, and that there are even inscriptions still extant, in which they are recorded. This general persecution was begun by a *Brâhmen* called CUMARILLA BHATTA'CHA'RYA; and carried on afterwards by SANCARA'CHA'RYA, who nearly extirpated the whole race. It is difficult to say, when this took place; but as there were vast numbers of *Baudd'hists* in the *Peninsula*, in the *Gangetic Provinces*, and *Gujarât*, in the ninth, tenth, and eleventh centuries, this general proscription could not of course have taken place at these periods. It is very probable, that the *Christians* were occasionally involved in these persecutions, as the *Christians* of St. THOMAS are considered as *Baudd'hists* in the *Dekhin*, and either their divine legislator, or his apostle THOMAS, is asserted to be a form of BUDD'HA.

THE *Hindus*, and more particularly the followers of BUDD'HA and JINA, fancy, that there are hidden mysteries in certain numbers. It was so formerly in the west, among the heathens, the *Jews* and the *Christians*. All over the world, the numbers *one* and *three* were considered as radical; and their combination was subject to whimsical rules. They are by no means to be added together, for *one* and *three* in a mystical sense, are but *one* and the same thing. We might suppose, that the square, and cube of *three* would be sacred numbers, but it is by no means the case. *Eight* is the mystical number, and *three* times *eight*, or *twenty-four* is a sacred number; and being multiplied by *three*, the pro-

duet is mystical also, and the number of years of JINA's life. The reason is, that *one* stands in the center representing JINA, who is *three and one*. *Eight* forms sprang from this, toward the *eight* corners of the world, and each of these is *three and one*: but we cannot say, that these *eight* forms, with the original *one* in the center, make either *nine*, or *twenty-seven*, for though each collateral form is perfectly distinct from each other, yet it is individually the same with the original *one*. Sectaries, at an early period, entertained accordingly strange notions, concerning the number of years, that CHRIST lived concealed, performed the duties of his ministry, and lastly about the length of his life. They conceived, that every circumstance, relating to so exalted a character, was mysterious. Some insisted that he lived *thirty*, *thirty three*, *forty*, and others nearly, but not quite, *fifty* years. STEPHANUS GORARUS has collected many of these idle notions, in the extracts made of his works by PHOTIUS.

It is not obvious at first, why 'SA'LIVA'HANA is made to have lived 84 years, but it appears to me, that this number was in some measure a sacred period among the first *Christians*, and also the *Jews*, and introduced in order to regulate Easter day; and it is the opinion of the learned, that it began five years before the *Christian Era*, and the *fifth* year of that cycle was really the *fifth* of CHRIST, but the first only of his manifestation to the world, according to the Apocryphal Gospels; and it was also the first of the *Christian Era*. In this manner the cycle of 84 years ended on the 79th of the *Christian*, which was the first of 'SA'LIVA'HANA's *Era*, and was probably mistaken for the period of his

life. It is mentioned by ST. EPIPHANIUS, who lived about the middle of the fourth century.*

IV. THE followers of BUDD'HA, in *Siam* and the *Burman Empire*, mention the wars of their legislator, with DE'VE-TA'T, who, they say, is the legislator of the *Christians*. He is the same, who is called a *Tacshaca* also by the *Hindus*; and who manifested himself in the first year of the *Christian Era*. They say, that he was, either a brother, or a relation of BUDD'HA: or in other words, he was a collateral form of BUDD'HA. They acknowledge some conformity between his doctrine and theirs, because, as they say, his disciples borrowed many things from BUDD'HA. He allowed them, however, to kill and eat all sorts of animals; and seduced very many of the disciples of BUDD'HA: and aspiring to sovereignty, he waged war against SAMAN'A GAUTAMA. He appeared at the head of a new sect, and engaged several Kings, and nations, to join him. He had the gift of miracles, and asserted that he was a god. DE'VA-TAT being several times worsted in this war, made overtures of peace, and SAMAN'A-GAUTAMA consented, on condition, that he would subscribe to three articles, which he was going to propose. These were to worship, first, God; then his word, and thirdly the person, who imitates the divine perfection, or in other words, to worship BUDD'HA. This last article was rejected by DE'VE-TA'T or his disciples, and they went to war again; when DE'VE-TA'T was defeated in the forest of *Salatayah* in the *Peninsula*†. He was taken prisoner, and em-

* See BASNAGE'S History of the Jews, page 436. English Translation;

† This is noticed also in the As. Res. vol. vi. p. 269.

passed alive, with his limbs trussed up, upon a double cross; and in that state hurled into the infernal regions. SAMAN'A-GAUTAMA, however, foretold, that in the end he would really become a god. BUDD'HA, or GAUTAMA is also represented waging war with PRA'ARIA-SERIA, for PRA'ARYYA'SIRA, the venerable chief, or Sire of the 'Aryyas or Christians; and another chief of them, called PRA-SWANE, or PRA-SWANA, from his loudly preaching against the doctrine of GAUTAMA. BUDD'HA and DE'VA-TWASHT'A' are made contemporaries in this romance; but this can be no objection; for it is only in allusion to the wars of their followers in subsequent times. The learned are very well acquainted, that this mode of writing history once prevailed in the west, at a very early period.

THE beginning of the seventh century is remarkable for the introduction of new eras, among the civilized nations of the world. The *Christian Era* was introduced at *Constantinople* in the year 526: but, as the learned observe, it was a hundred years before it was generally adopted, and this was in the beginning of the seventh century.

IN *Persia*, the era of YEZDEGIRD began in the year 632: that of the *Hejra* was introduced by OMAR in the year 638. Those of *Siam*, with the *Burmahs* have an era beginning in the year 638: but as they borrowed every thing relating, either to their religion, or their astronomy, from *Ceylon*, and the *Peninsula of India*, this period must have originated there. The *Japanese* consider the ascension of the latter BUDD'HA, under the name of GUSO-BOSATZ, as a memorable epocha; and it happened in the year 691, because they say that he lived only 59 years, and he was born in the year 572. According to the *Satru-*

jaya-mahātmya, the translation into heaven of GUZO-BOSATZ or GAJA-VASISHT'A, that is to say, he who abides in the mortal frame of an elephant, and called in the above treatise 'SRĪ-HASTĪ-S'ENA, a compound nearly of the same import, happened three years, eight months and fifteen days, before the time of the *Panchmārās*, or MUHAMED and his four associates; that is to say, he died in November 617. But, if we suppose, with the *Paurāṇics*, that he lived 66 years, his ascension will fall in the year 638, according to the computation of the *Burmans* and *Siamese*. This BUDD'HA was born in the year 500, and reigned 65 years, according to the *Cumārīcā c'han'da*, in some copies of which, we read 62, and 64; but he appears to be the same with GAJA-VASISHT'A; both being represented as the last incarnation of BUDD'HA; the *Japanese* having mistaken the era of his manifestation as a god, or his death, for that of his manifestation as a man.

Thus the *Jainas* in *India* say, that their legislator died in the year 1036 B. C. which the divines of *Tibet* consider as the year of his birth.

THE *Christians* of *India*, in the seventh century, were actuated by the same principles, and chose the supposed year of CHRIST's ascension for the first of their new era. They were at that time in *India* in the most profound ignorance, through the want of pastors, as we observed before: and their religion was a strange medley of the *Christian*, and of that of BUDD'HA, which prevailed at that time in the *Peninsula*: infomuch that M. POLO considered some of the *Aryyas*, in despite of their virtues, as idolaters. 'SĀ'LI-VA'HANA, or DEVA-TAT, was considered as a brother, or relation of BUDD'HA,

OUR blessed Saviour entered on his mission, when thirty years of age, like BUDDHA; and like him, he was born of a virgin: the additional years were introduced from their mistaking the ecclesiastical cycle of 84 years for the period of his life: and like them, the *Christians* made a point of reckoning their era from this supposed year of his ascension. This was not peculiar to the *Hindus*; the *Christians* of Egypt chose the various manifestations of CHRIST, during his ministry, and the different events of his life, in preference to that of his birth. According to the appendix to the *Agni-purāṇa*, the era of 'SACA, or 'SA'LI-VA'HANA, was introduced into *India*, or began to prevail, in the year corresponding to that of CHRIST 676, exactly 135 years after the death of a certain VICRAMA'DITYA. The bloody wars, between these two exalted characters, are supposed to have been only about their respective eras; and VICRAMA'DITYA, in his dying moments, thought of nothing but his era; whilst it is the general opinion, that it began at his death, and of course he could not be the author of it. One would imagine that 'SA'LI-VA'HANA's era would have begun, the moment that he became a 'Saca, by putting to death another 'Saca, such as VICRAMA'DITYA was; but it happened otherwise, 'SA'LI-VA'HANA thought no more of his own era, which was introduced after his death by his followers, or adherents in the *Dekhin*; for it never was used in any other part of *India* except *Bengal*.

It is therefore my humble opinion, that the *Christian Era* was introduced, and new modelled in *India* by the *Christians*, and the 'Arya, or 'Sakya, Kings, on the decline of the *Christian religion*; and used by them, and other *Hindus* in their intercourse with them.

IT is supposed, that the *Bráhmens* are too proud to borrow any thing from their neighbours; but this is by no means the case; and, whenever they are acquainted with the circumstance, they will most candidly acknowledge it, particularly astronomers and physicians.

AFTER the conquests of ALEXANDER, and for many centuries after, there seems to have been an eager desire, in *India*, for foreign arts and sciences, curiosities, instruments of music, wine, and even beautiful damsels from *Greece*. According to ELIAN, and DIO CHRYSOSTOM, the *Hindus*, as well as the *Persians*, had the works of HOMER translated into their native languages: and PHILOSTRATUS says, that they were well acquainted with the ancient heroes of *Greece*; and that they had statues made by *Grecian* artists. And this is very possible, as the *Greeks* of *Bactriana* were in possession of the *Panyáb*, for more than a hundred and twenty years. The Kings of *Magad'ha* repeatedly wrote to the successors of ALEXANDER, for sophists, or learned men from *Greece*; and lately the famous JAYA-SINHA, *Rája* of *Jaypur*, wrote to the King of *Portugal* for learned men; and he had several sent to him; and the King of *France* sent him also an astronomer, P. BOUDIER. He had the elements of EUCLID translated into *Sanscrit*, part of which fell into the hands of Mr. DAVIS. There, it is said, that this valuable book, originally written by VIS'VACARMA, or TWASH'T'A, the artist god, had been lost for many thousand years; but was rescued from obscurity, by the extraordinary efforts of JAYA SINHA.

He had also another voluminous treatise, called the *Sidd'hánta-Samrá't*, on geometry and astronomy, entirely compiled from various

authors from the west. The greatest part of it is now in my possession; and was procured at *Jaypur*, by Colonel COLLINS resident with *SINDIA*. MR. DAVIS informs me also, that at the same time the work of THEOPHASTUS, on the sphere, was translated into *Sanscrit*. As these thefts are not recorded, the circumstance is hardly known now to any of the natives. JAYASINHA had also an extract made of all the constellations in SENEX's celestial planisphere, and instead of 72 asterisms, he had 144 made out, by splitting all those that would admit of it, into two or three new ones. The royal oak of course has found its way there, under the name of *Mula-vrisha*, the radical or primeval tree: and the *Indian* is called *Sarendra*, or the chief of archers; and as the *Hindus* have no altars, the constellation of that name has been converted into a footstool.

THERE is a famous astronomer, whose works, or at least part of them, are still extant, well known all over *India*; and declared to have been a foreigner, as implied by his name of YAVANA'CHA'RYA, or the *Grecian* philosopher, and who lived, according to tradition, a little before the time of MUHAMED. The *Hindus* give the name of *Yavanas*, or *Greeks*, to the inhabitants of the countries to the west of *India*, probably because the *Greeks* were once masters of *Persia*, and afterwards the seat of empire was fixed at *Constantinople*. From the account they give of him, it does not appear that he was a native of *Greece*; but only deeply skilled in the learning of the *Greeks*, having probably attended the university at *Alexandria*.

THEY say, that he was a *Bráhmén*, born in *Abraia*, the inhabitants of which country were, at that time, followers of BRAHMA, and that

the *Sanscrit* language was studied and well understood there by the learned. He came to *India*, where he resided for a long time, and in his old age he returned to his native country, in order to end his days at *Môcshé'wara-s'hán*, or *Mecca*, in the performance of religious duties. Dr. BUCHANAN informs me, that he saw in the *Dekhin* several tribes of *Jainas*, who insisted that they came originally from *Mecca* or *Arabia*; and that they were expelled by MUHAMED, or his successors.

THERE are certainly followers of BRAHMA', and *Bráhmens*, to this day, in *Arabia*: and I am credibly informed, by natives of that country, that in the interior parts, there are still many idolaters, whom they suppose to be followers of BRAHMA', or *Hindus* as they call them. The greatest part of the old names of places in *Arabia* are, either *Sanscrit*, or *Hindi*: and PLINY mentions two celebrated islands, on the southern coasts of *Arabia*, in which there were pillars with inscriptions in characters unknown, I suppose to the *Greek* merchants, who traded there: but these were probably *Sanscrit*; as one of these two islands was called *Isura* or *Is'wara's* island, and the other *Rénnea*, from the *Sanscrit* *Hiti'yá*, or the island of the merciful goddess.

THE *Hindus* claim *Mecca*, as a place of worship belonging to them, and certainly with good reason. They say, that they were allowed to go, and worship there, for several centuries after the introduction of the religion of MUHAMED; but were afterwards positively forbidden, even to approach this sacred place.

I ALWAYS conceived, that there was only one sage of the name of YAVANA'CHA'RYA; who was considered as a foreigner: but

having consulted lately several learned astronomers, they informed me, that there were no less than five, who are considered as foreigners. Their names are C'HATTA, C'HUTTA, RO'MACA, HILLA'JA and DISHANNA; these, it is said, were *Yávanas* or *Greeks*. They certainly have very little resemblance with any *Greek* proper names, which we are acquainted with. Be this as it may, they are all supposed to have returned to their native country, with an intention to end their days at *Mecca*. From this circumstance, I suspect, that they were *Greeks* from the famous university of *Alexandria*; and *Mecca* was at a very early period a famous place of worship. GUY PATIN mentions a medal of ANTONINUS, in which it is called *Meca* the sacred, the inviolable, and using its own laws: and of this I took notice in my essay on SEMIRAMIS. The university at *Alexandria* was in a flourishing state, from the time of the PROLEMIES, to the fourth and fifth centuries, and even till the time of MUHAMED. *Hindus* often visited that famous city; for PTOLEMY conversed with several, in the third century, who appear to have been well informed men.

THESE five foreign astronomers wrote many books: but few remain: and the reason, in the very words of my learned friends, is, that the substance of these treatises, having been incorporated into more recent tracts, they were of course neglected, and afterwards lost. This acknowledgment from *Bráhmens* surprised me not a little; but I find, that astronomers in general, and learned physicians, are much more tractable, and conversable, than the other *Hindus*.

WHATEVER may be our opinion about these five strangers, their names, and their country; yet from such an acknowledgment, and

more, particularly so from *Hindus*, we may rest assured, that there is some truth in it. The *Hindus* reckon three and twenty famous astronomers, eighteen of whom were natives of *India*; and the five others, foreigners. These they insist were natives of *Arabia*: and if so, they were called *Yavanacharyas*, not because they were of *Grecian* extraction; but because they were skilled in the learning of the *Greeks*. Indeed their names, or rather surnames, appear to be *Arabia*. HALLAGE, and CATHAN are names well known to *Arabian* writers: and EBN-DISSAN is the name of a famous impostor born at *Edessus*. Of RO'MACA, or the MLE'CH'HA'VATA'RA, I took particular notice before, and DI'AHAN is the name of OMAR in several copies of RAGHU-NATHA'S list; and it was he who first established the era of MUHAMED in the year of CHRIST 638, and for this reason, they supposed him also to be a great astronomer, as well as RO'MACA.

THERE is another astronomer, called CANGHA or CANGHAM, and CANGHEH, whom the *Hindus* suppose to have been a foreigner; yet *Musleman* writers say, that he was a *Hindu*, and perhaps he lived on the western frontiers of *India*. By D'HERBELOT he is called CANCAH-AL-HINDI, KENKER, KENCAR and CANGHA. He wrote a treatise on astrology, in *Hindi* or rather *Sanscrit*, which was translated into *Arabia*, and is said to be extant. He is perhaps the same with MANOHEH, who, according to D'HERBELOT, made so conspicuous a figure at the court of HARUN-AL-RASHID, about the year 808, as a physician. The famous DANDAMIS or DAMA-DAMIS is unknown to the *Hindus*; but the *Muslemans* in *India* call him TUMTUM, and D'HERBELOT THOM-AL-HENDI. He is noticed by ABUL-FAZIL in his preface to the

third volume of the *Avyākāśi*. He was probably thus called, because he lived upon a *Dumdum*, or *Dumdumá*, which is a platform of earth, now more generally called a *Chibootta* or *Tháná*, from *Sthāna* a stand.

As the names, or rather the surnames of these foreigners, are in great part derivable from the *Arabic*, and from no other language, it is not improbable, but that several, if not all of them, were from *Arabia*, whatever their religious tenets might have been. The first of them, according to tradition, lived a little before MUHAMED, when the schools of *Alexandria*, and *Berytus* in *Phœnice*, were still flourishing. From that period, learning began to revive among the followers of MUHAMED; and of course this learned man flourished, from the latter end of the sixth, or from the beginning of the seventh century to the time of AL-MAMUN, who reigned at *Balkh* in the tenth, and till the invasion of *India* by the *Muslemans*.

THE *Hindus*, at an early period, were famous for their knowledge of astronomy and astrology. The latter is entirely grounded upon the former; and the accuracy of the decisions, and predictions, depends entirely upon the precision, with which the conjunctions, oppositions, and the various aspects of the heavenly bodies are ascertained. In the first century, *Hindu* astrologers, were in high estimation and repute, at *Rome*, and none but the richest men could afford to employ them. It appears, from *ARRIAN* on the authority of *MEGASTHENES*,* that in the time of *ALEXANDER*, they had almanacs, with predictions con-

* *ARRIAN* de Indica.

cerning the weather, and impending calamities, such as they have at present, but more particularly so in the *Peninsula*. STRABO says, that the *Brahmens* professed astronomy,* and he extols, at the same time, the attention they paid to learning. Q. CURTIUS testifies, that they skilfully observed the motions of the heavenly bodies,† EUSEBIUS, who lived in the third and the beginning of the fourth century, says that it was a *Hindu*, who first delineated schemes of the heavens, or the principal constellations.* His name was ANDURARIUS, and he was considered as the founder of astronomy in *India*, and was famous for his skill and wisdom. According to EUSEBIUS, he lived soon after the flood, in the western parts of *India*; and this famous astronomer probably formed, and delineated the twenty-seven lunar mansions, which seem to be the exclusive property of the *Hindus*. The opinion of EUSEBIUS, and the other learned authors whom I have mentioned, was certainly that of the age in which they lived; and STRABO says, that the notions of the *Hindus* concerning the universe, and the sphericity of the earth, were the same with those of the *Greeks*. They had a code of laws in the time of ALEXANDER, and they wrote upon a sort of paper; for thus I understand the words *ἐν σινδερὶ λευκῷ περιγεγραμμέναις* upon cloth well beaten.‡ STRABO takes notice, that in his time some asserted, that the *Hindus* were acquainted with the use of letters, whilst others denied it. He adduces the above passage from NEARCHUS in

* Lib. 15.

† Lib. 8.

‡ STRABO lib 15. p. 717.

proof of the former assertion; but the passage against it from MEGASTHENES is by no means conclusive, and seems to me, on the contrary, to prove that they were acquainted with the use of letters; for it implies only, that they used no writing in their courts of justice in camps where every thing was settled in a summary way; and it is even so to this day. Besides, says our author, such is the probity of the *Hindus*, that all the time he was in the camp of SANDROCOTTUS, which consisted of 400,000 men, none but petty thefts were ever brought before these courts, and they (the judges) even could not write. Under such circumstances, neither any code of laws, nor much learning, or any writing, were necessary; common sense and integrity were the only requisites on the part of the judges. *

DURING the first centuries of the *Christian Era*, the *Hindus* were very fond of travelling. Their Kings sent frequent embassies to the *Roman* and *Greek* Emperors: and some of these Embassadors went as far as *Spain*. Others visited *Alexandria* and *Egypt*, where *PTOLEMY*, in the third century, saw them, and conversed with them. Some of these Embassadors had long conferences, at *Babylon*, or rather *Seleucia*, with the famous *BARDEANES*: and pilgrimages to the *Sh'han* of *Mahá-Bhagá*, now *Mábag*, or *Bambyk* in *Syria*, were very common, according to *LUCIAN*, as cited by the authors of the ancient *Universal History*. Even to this day, pilgrims from *India* go to *Persia*, *Georgia*, *Moscow*, and *Arabia*, *Bootan*, *China*, and even *Siberia*.

* STEARO lib. 15. p. 609.

We are not to suppose, that there never was any intercourse between *India* and the more western countries of the old continent. There were diviners and soothsayers in *Syria* and *Palestine*, from beyond the east, that is to say from beyond *Persia*, and of course from *India*, 700 years before CHRIST, according to ISAIAH; and these, long after, found their way even to *Rome*; and, according to some, it was a *Hindu*, that had been shipwrecked in the *Red Sea*, who first pointed out the way to *India* by sea.* XERXES, when he invaded *Greece* in the year 480 B. C. had a large body of *Hindus* with him, whose officers were men of respectability, and there is little doubt, but that they had *Bráhmens* with them.

THREE hundred years before our era, the *Carthaginians* had numerous elephants from *India*, and their mahots or drivers were *Hindus*. They seldom used the *African* elephants, which, says PLINY, were timorous, and could not bear the sight of the elephants from *India*.† The *Carthaginians* had no proper name for an elephant, and from the mahots they adopted the *Hindu* name *Gaja*, which they pronounced *Gaisa*. Till that time, they, as well as the *Phœnicians* their ancestors, called them *Elaph* or *Alpha*, beeves or oxen:‡ and the *Romans*, when they saw PYRRHUS's elephants, called them, also *Lucæ Bovæ*, and this was in the year 280 B. C.

POLYBIUS || informs us, that in the year answering to 251 B. C.

* STRABO p. 98 and 100.

† SOLINAS Exercitat. Plinian. p. 217.

‡ HEYNE under the word *Alpha*.

|| POLYB. Lib. 1. p. 42. and Lib. 3. p. 200.

METELLUS defeated ASDRUBAL in *Sicily*, killed six and twenty of his elephants, took one hundred and four, and sent them to *Rome*, with their drivers, who were *Hindus*. According to the same author, when HANNIBAL crossed the *Rhone* 218 years B. C. the drivers of his elephants were also *Hindus*; and after this period, we find a *Hindí* word for an elephant introduced into *Italy*; for till that time, they called them large oxen. This name was *Barrus*, or *Baro*, as it is written by ISIDORUS,* who says, that it was a *Hindu* denomination: *Baro* and *Baronem* in the objective case, are from the *Sanscrit* *Bāraṇ'a* and *Bāraṇ'am*. From *Barrus* or *Baro*, the *Latins* made *barritus*, to express a noise like that made by an elephant, and also the verb *barrire*; and probably the word *Ebur* is derived from it.

WHEN MANLIUS marched, at the head of an army, through *Caria* and *Pamphylia*, 189 years B. C. he came to the banks of a river, near the fort of *Thabusion*, called the river *Indus*, or of the *Hindu*; from a *Hindu* mahot, who fell into it from his elephant, and was drowned;† and this was on the borders of the greater *Phrygia*. Sometime before this, we read in ALCIPHRON's letters, that *Hindus* of both sexes, in the capacity of servants, were not uncommon in *Greece*. Several emigrations took place from *India*, and we find some tribes of *Hindus* settled in *Colchis*, where are *Hindus* to this day; and HESYCHIUS asserts, that the *Sindi* of *Thrace* came originally from *India*.‡ When Q. METEL-

* ISIDOR. de origin.

† TIT. LIV. lib. XXXVIII. C. 14.

‡ BRYANT'S Mythol. Vol. 3d. p. 217.

ORIGIN AND DECLINE OF THE

THE CÆSAR was prætorius of Gaul, 59 years B. C. the famous ARVIDE^{*} king of the Suevi made a present to him of some *Hindus*, who had been shipwrecked on the German shores. They were merchants, who had ventured thus far from their native country.* In the *Vrthas-cathā* we read of several *Hindu* merchants, who visited the *Sacred Isles* in the west, and being shipwrecked, they were made slaves; and some of them were so fortunate, as to obtain their liberty, and to revisit their native country. It is declared there, that they went a great part of the way by land, and then embarked at a place called *Itancast* another harbour is mentioned also under the name of *Pauta-pur*, and this subject I shall resume when I come to treat of the *Sacred Isles*. STRAHLENBERG saw a *Hindu* at *Tobolsk*, who went from *India* to that place, through *China*. BELL saw another *Hindu* from *Madras*, on the banks of the *Argonē*; and Mr. DUNCAN Governor of *Bombay* introduced another to my acquaintance, who had been there also. The distance from the *Indus* to *England* is one fourth less, than that from *Malras* to *Tobolsk* through *China*;† and the ambassadors of *PORUS* travelled as far as *Spain* 24 years B. C. The constant embassies, sent from *India* to the Emperors of *Rome* and *Constantinople*, are well known to the learned, even as late as the sixth century; but in the seventh, the growing power of the *Muhamedans* became an insurmountable obstacle to any further intercourse. Besides, the present state of society, manners and politicks in the west, make it impossible for *Hindu* pilgrims to travel through *Europe*. They would

* Cornel Nepos apud PLIN. SUETON. CICERO in Vatin. c. 10. PLUTARCH &c.

† *Vrthas-cat'hā* *Lambaca* or Section the 5th called also *Chaturdārīcā*.

‡ STRAHLENBERG p. 103 *Asiat. Researches* vol. vi. p. 483.

be stopped at every step, and occasionally confined; and instead of alms, they would receive insults only from the lower classes.

BUT the most famous of all, was the embassy sent by PORUS to AUGUSTUS: the ambassadors went to *Spain*, where he was at that time, 24 years B. C. according to OROSIUS; and the purport of their commission was to enter into an alliance with him. But, as some time was spent before any progress could be made in this affair, other ambassadors were sent by PORUS, some years after, when they found the Emperor at *Samos*. This PORUS in his letter boasted, that he was lord paramount over 600 kings; and, in the supplement to the *Bhavishya-purán'a*, it is declared, that no less than 800 kings were the vassals of the famous VICRAMADITYA. With them were also ambassadors from PANDION, king of the southern parts of the *Peninsula*; and they had in their train a *Bráhmén*, a native of *Brigugosha* (now *Barqach*) called C'HAD'GA the *Sármana*, ZARMANOS CHAGAS. Hé chose to remain behind, and attached himself to AUGUSTUS, in whose service he remained for some time, in the capacity, it seems, of an augur or soothsayer.*

WHEN the Emperor was at *Athens*, C'HAD'GA the *Sármana* caused himself to be initiated into the sacred mysteries, though it was not the usual time; and soon after he voluntarily ended his days on a funeral pile. CALANUS followed ALEXANDER of his own accord, and ascended likewise the funeral pile at *Pasargada*. There was even a large detachment of *Hindus*, who followed ALEXANDER into *Persia*, and which

* STRABO. DIO. PLUTARCH and NICOL. DAMASCEN.

we find on the borders of *Media*, with *EUMENES*, eight years after the death of the former. It was commanded by the brave *KETUS*, probably *KETU*, or the fiery meteor of war; and there was certainly little, or no compulsion used by the *Greeks*, for they took even their wives, and families along with them. *KETUS* died fighting valiantly, and his two wives insisted upon burning themselves with the dead body; but it was found, that the eldest was with child, and therefore she was prevented from following her husband. The youngest went triumphantly, and was led by her brother, and other relatives, and servants, to the funeral pile.*

CLAUDIUS received also an embassy from a king of *Ceylon*: and when *TRAJAN* was marching against the *Parthians* in the year 103, some princes of *India* sent ambassadors to him, requesting him to settle some disputes between them and their neighbours, probably the *Parthians*. It is remarkable, that during this expedition, *TRAJAN* was constantly supplied with oysters from *Great Britain*; and which were preserved fresh, by a particular process, discovered by one of the first epicures of the age. There were ambassadors from *India* sent to *ANTONINUS PIUS*, to *DIOCLETIAN*, and *MAXIMIAN*; to *THEODOSIUS*, *HERACLIUS*, and *JUSTINIAN*; and we read† of two *Hindu* kings, putting themselves under the protection of *DIOCLETIAN* and *MAXIMIAN*, and their names were *GENNOBON* and *ESATEC'H*. In the year 274, *AURELIAN* took *Palmyra*, and made Queen *ZENOBIA* prisoner. There he

* *Dionor* Sic. lib. xix, C. 2.

† *Art. Univ. Hist.* vol. xviii. p. 78.

found a body of *Hindus*, whom he carried to *Rome*, to grace his triumph. DAMASCIUS, who was contemporary with JUSTINIAN, in his life of ISIDORUS, relates several curious anecdotes of SEVERUS, a *Roman*, but by birth an *African*, and who lived in the time of the Emperor ANTHEMIUS. SEVERUS was a philosopher of most austere manners, and great learning, and fond of the society of learned men. After the death of that Emperor in 473, he retired to *Alexandria*, where he received at his house several *Bráhmens* from *India*, and whom he treated with the greatest hospitality and respect. Dates and rice were their food, and water their beverage, and they shewed not the least curiosity, refusing to go and see the most superb fabrics and palaces, with which that famous city was adorned.*

It is remarkable, that ancient travellers make no mention of the monstrous statues of the *Hindus*. The historians of ALEXANDER take notice of the *Sibæ*, carrying among their standards the image of HERCULES, whoever he was. The *Suraseni* round *Muttra* on the *Jumná*, had also a statue of HERCULES,† or BALA-DEVA. PHILOSTRATUS takes notice of some figures cut out of the rock beyond *Hardwar*; but these statues had nothing monstrous in them, no more than those made by *Grecian* artists in the *Panjab*, according to the same author. It is not improbable then, that at that time the *Hindus* had not yet attempted to represent, either in stone or wood, their monstrous deities. They were first

* Photii Bibliotheca. p. 1040 and SUIDAS v. SEVERUS.

[† Asiat. Researches vol. v. p. 294.

introduced to our knowledge by *Jews*, according to *CLAUDIAN*, who wrote in the fifth century, and who says :

———— Jam frogibus aptum
Æquor, et affuetum sylvis delphina videbo :
Jam cochleis homines junctos, et quidquid inans
Nutrit JUDÆICIS, quæ pingitur *India*, velis.

FROM this it appears, that in his time the *Romans* adorned their houses with tapestries, worked by *Jews*, and representing all the wild, and monstrous figures of *Hindu* mythology, such as men growing out of shells. This is an obvious allusion to 'SANC'HĀ'SURĀ, and his tribe living in shells, and peeping out of them in 'Sanc'ha-dwīpa or *Zangh-Bar*.

IN the year 529, a king of the *Hemiarites* in *Arabia*, called *AL-MON-DAR*, a general name for the kings of that tribe, and generally residing at *Hirah*, invaded *Syria*; and the *Roman* exarchs, or Governors, were obliged to fly to *India* for shelter, and certainly by sea, as the *Romans* were at war with the *Persians*,* and probably they found no other means of escaping, but by getting on board of some ship just going to sail for *India*.

THERE were at *Rome* augurs, and diviners from all nations, but mostly from *Chaldea*. There were some from *Armenia*, *Egypt* and even a few *Jews*, and particularly women from that nation. There were also astrologers, says *JUVENAL*,† from *Phrygia* and *India*; and none but very rich people employed these, and this was about the middle of the first

* DU FRESNOY Chronolog. A D. 529.

† Sat. vi. v. 584 and 549

century. There were many *Hindus* at *Alexandria*, according to *Pro-
tany*, who lived in the beginning of the third century. The inhabi-
tants of *Europe*, at an early period, did by no means show so much
readiness in leaving their native homes to visit distant countries, and
particularly *India*. We are told that *PYTHAGORAS* and *DEMOCRITUS*
visited the *Hindu* Sages; but these accounts are delivered in too
vague a manner, to deserve any credit.

THE first *European* upon record, who visited *India*, is *SECTAX*, a *Greek*
and experienced seaman, sent by *DARIUS HYSTASPES* above 500 years
B. C. to explore *India*. For this purpose he went to *Caspetyrus* or *Cas-
papyrus*, now *Cochin* upon the *Hydraspes*, called also *Indus*, and by the
Hindus the lesser *Sindhu* or *Sindh*. Having made the necessary arrange-
ments, he sailed down a large river, which flowed toward the east, and
then he entered the ocean, and returned by the way of the *Red-Sea*, and
sailed to the bottom of it, where his voyage ended, after a circumnavi-
gation, both on the river and by sea, of two and thirty months. This
river is unfortunately called the *Indus* by *Hæcædorus*; otherwise, from
the particulars, such as the course of that river, and the time that his cir-
cumnavigation lasted, one would suppose that it was the *Ganges*; and
indeed many learned men are of that opinion.

THE next *European* who visited *India*, was the philosopher *PHALON*,
about 430 years B. C. but it was not an act of his own. He is said to
have been an *Elea*, probably because he was a native of *Elea* in the
lesser *Asia*. It is recorded of him, that he was taken, and detained by
Indians, and afterwards sold by them as a slave. It is probable, that he

had been sold first to some *Persian* nobleman, sometime after appointed to the government of some district in *India*, where *Phaëdon* was carried away by a party of *Hindus*. Be this as it may, we find him afterwards at *Athens*, as a slave again, to a man, who kept women and handsome young men, for the purpose of prostitution. He was redeemed by *Alcibiades* at the request of *Socrates*, whose disciple he became. He founded the *Eliac* school, called *Eretrian* afterwards, from its having been transferred to *Eretria* in *Eubœa*, by *Menædamus* his successor.*

THERE was a regular trade carried on, to *India*, from the accession of the *Ptolemies* to the throne of *Egypt*, to the conquest of that country by the *Romans*, which did not cease till the middle of the seventh century, when the growing power of the *Muhamedans* put an insurmountable obstacle to a regular intercourse. The *Greeks* under the *Ptolemies*, had settlements at *Callian*, near *Bombay*; but they were driven out of them by the native Kings. It seems also from the *Peutingian* Tables, that the *Romans* had a considerable settlement near *Muziris* now *Minjee*, where they had erected a temple in honor of *Augustus*†; and they had also two cohorts, or 1200 men, to protect their trade. The imports and exports were the same as they are to this day, as it appears from *Arrian's Periplus*, and the *Justinian* code.

THE *Greek* Kings of *Bactriana* ruled over all the countries on the banks of the *Indus*, even as far as *Sirhind*, during a period of 129

* See *SUIDAS*, *HESYCHIUS* de illustrib; and *LÆRTIUS*.

† See *Peutingian* Tables.

years, that is to say from the year 255 to 126 B. C. Even some of them were in possession of the western parts of the *Ganges* provinces: and DEMETRIUS is mentioned as one of them; and according to SIG-BAYER, he never was King of *Bactriana* or *Balk*, but of some inland part of *India*, extending beyond the *Ganges*, about the year 195 B. C. According to STRABO, his predecessor MENANDER conquered the countries to the east of the *Hypanis*, as far as the *Jumna*.* His empire extended from *Pattalene*, to *Zixerus*, which I take to be the small but famous lake called *Jid-jer*, or the spring of *Jid*, noticed by CRYSTIAN under the name of *Sid*, and a little to the westward of the *Jumna*, and *Dellé*.†

To these conquests DEMETRIUS added some maritime countries to the eastward of *Pattalene*, such as *Sigertis*, and the kingdom of *Tesseristus*, now the countries of *Cachha* and *Gujjarât*, as I shall show in the appendix.

THERE are now numerous *Hindus* roving all over *Arabia* and *Persia*, as far as *Astrachan*, or settled in some places of trade for a few years only, when they return to *India*.‡ For I take no notice here of numerous tribes of *Hindus*, who are considered as natives of *Persia*, *Turan* and *Colchis* or *Georgia*; they are called *Hind*§ all over these countries, and have been settled there from time immemorial.¶

* STRABO Lib. II. p. 516.

† See MAURICE'S Modern History of *Hindoostan*, vol. 1. p. 95. It is called erroneously *Bhedar* in the *Ayin-Acberi*, vol. 2. p. 107.

‡ FORSTER'S Travels, vol. 2.

§ According to the late Nabob MEHDI-ALI-KHAN, a native of *Mesched*. See Essay on the origin of *Mecca*, Asiatick Researches, vol. 5.

FROM the *Malabar Coast* they go to *Mosambique*; where they have agents; who generally reside there seven or eight years; and STRABO takes notice of a merchant from the *Malabar Coast*, at *Astrachan*. * From *Surat* and *Gujarat*, they go to *Masbat* and other trading places in *Arabia*, where *Brahmins* are to be found also, according to NIEBUHR. ARIAN in his *Periplus* says, that the inhabitants of the island of *Dioscoridis* (now *Socatra*), consisted of *Arabs* and *Hindus*, with a few *Greeks*, settled there on account of the trade to *India*. The famous *PRA-N-PUR* told me, that when he was at *Bahrein* on the *Persian Gulf*, he was informed by the *Hindus*, whom he found settled there, that they used to go formerly to *Egypt*, where they had houses of agency, but that they had left off going there for about two or three generations.

THIS shows, that there was between the *Greeks*, *Romans*, *Carthaginians* and the *Hindus*, a constant and reciprocal intercourse (which is by no means the case now) for a period of 1200 years at least: and to which nothing, but the overgrowing power of the *Muslemans*, could put a stop. In visiting the sages of *Babylonia* and *Egypt*, the *Hindus* must have been greatly surprised, and their vanity humbled, when they heard them talk of their remote antiquity. Then, and not before, in my opinion, they resolved not to be behind hand with any of them; and certainly they have succeeded wonderfully. Neither the *Greeks* and *Romans*, nor the *Turdetani* a *Galic* nation, though settled in *Spain*, according to STRABO, carried history, and the beginning of things,

Beyond a period of 6000 years, exactly like the *Jews*, and *Hindus* formerly, according to MEGASTHENES. The *Gothic* tribes entertained also the same notions, as appears from the cosmogony of ORPHEUS, who was a *Goth*.*

THE *Hindus* had the system of the *Yugas* long before; but this was not peculiar to them, for it prevailed all over the west, and HESIOD, who lived between 900 and 1000 years before CHRIST, declares that the *Cali-yuga* was just beginning; and the *Jainas* assert that it began about that time. Though the *Yugas* are of a very great antiquity all over the world, yet the *Hindus* did not think of stretching their duration to such an enormous length, till a period comparatively modern; and the *Yugas* in the west were also the component of their grand *Calpa*, which consisted equally of 12,000 years, but with this difference, that in the west these were considered as natural years, which is not the case in the east, at least now.

THE first time we heard, in the west, of this extravagant system of chronology, was about the middle of the ninth century; when we were informed by ABU-MAZAR, a famous astronomer, who lived at the court of AL-MAMUN at *Balkh*, that the *Hindus* reckoned from the flood or the beginning of the *Cali-yuga*, to the *Hjra*, 720,634,442,715 days, or 3725 years.

THERE is obviously a mistake, originating either with the transcriber or translator; but it may be easily rectified. There is exactly that

* See GESNER's notes on the fragments of ORPHEUS, also FABRICIUS Cod. Pseudepigr.

number of years, from the beginning of the *Cal-yuga* to the *Hejra*: but that immense number of days are reckoned from the creation to the *Cal-yuga*, according to BRAHMA-GUPTA's system. MR. DAVIS, after reading this passage in my manuscript, kindly undertook to examine it more particularly, and I beg leave to refer to his learned note on the subject, in the appendix at the end of the essay on VICRAMA'DITYA and SALIVAHANA.*

TILL that time, the extravagant numbers of the *Hindus* were unknown to the *Greeks* and *Romans*, with whom they kept up a constant intercourse. That the *Hindus* concealed the whole from them; is inadmissible: for it is natural to suppose, that they were equally vain with the rest of mankind. We are well acquainted with the pretensions of the *Egyptians* and *Chaldeans* to antiquity: and surely they did not take the trouble of inventing fables to conceal them. On the contrary, MEGASTHENES, a man of no ordinary abilities,† who had spent the greatest part of his life in *India*, in a public character, and was well acquainted with the chronological systems of the *Egyptians*, *Chaldeans* and *Jews*, made particular inquiries into their history, and declares, according to CLEMENS of *Alexandria*, that the *Hindus* and *Jews* were the only people, who had a true idea of the creation of the world, and the beginning of things: and we learn from him, that the history of the *Hindus* did not go back above 5042 years, from the invasion of *India* by ALEXANDER. Manuscripts differ; some have 5042, or 6042: others have 5402 years, and three months; for he calculated even the months; but the difference is immaterial in the present case.

* As. Res. v. q. p. 242.

† See Asiatick Researches, vol. 5. p. 290.

THIS period of the *Hindus* was adopted afterwards by the *Persians*, or was common to both: and the latter reckoned, from the creation to the era of MELIC-SHAH, in the year 1079 of CHRIST, 6,586 years;* that is, they placed the creation 5507 years before CHRIST. It appears also from GEORGE of Trebizond, that the *Persians* reckoned, from the flood to the year of CHRIST 632, or era of YEZDEJIRD, 3,735 years, ten months; and twenty-three days, conformably to the ideas of ABU MAZARR: and this is again the period of the *Cali-yuga* of the *Hindus*. From ALEXANDER's entering *India*, to the same era of MELIC-SHAH, there are 1408 years; which deducted from 6,586, there remains 5178; and this I believe was originally the true reading in ME-GASTHERES's account of *India*. Be this as it may, the difference, relatively speaking, is not very considerable, and is immaterial in the present case.

CHRIST was the son of a carpenter, and himself a carpenter, or *Tacshaca* in *Sanscrit*. The *Persians* called him a *Peushé cara*, handicraftsman and tradesman. In the *Calpa-druma-Calicá*, a treatise of the *Juinas*, and in my possession, *SA'LA-VA'HANA*, called by the *Hindus* a *Tacshaca*, and said to be also the son of a *Tacshaca*, *Tash'tá* or *Tuash'tá*, is declared to have been a '*Sr'avaca* or '*Sávaca*, a tradesman: and in the western parts of *India*, as in *Gurjar'át*, all banyans and tradesmen are called '*Sávacas*. The words of the '*Calicá*' are, "*SA'LA-VA'HANA Ndmá Rájá Jaina; Párama 'Sr'avaca-pati*. The King called *SA'LA-VA'HANA* was a *Jaina*, and the lord and master of the '*Sr'avacas*," or '*Sábacas*, as more generally written and pronounced.

* BAILLI'S *Astronom. Ind.* p. 251.

EVEN the name of 'SA'LI-VAHAN, 'SA'LIBAN, and 'SA'LBAN, as he is called in the spoken dialects, seems to be of Persian and Arabic origin, as well as *Peisheh-câr*, the name of his followers. *Salib*, or *Sulib* signifies a stake, a cross, a gibbet, the *Roman Furca*; like the Greek Σταυρος, *Sálíb* or *Sálb* signifies also crucified, and in the plural form, it becomes *Sálub*, and *Sálbán*. *A'shab-al-Sálíb*, means the Christians in Arabic, that is to say, the followers of the crucified. The best Sanscrit expression for this is 'Suliva, 'Sálava, or 'Salwa in a derivative form, and these are indifferently pronounced 'Sálaba, or 'Sálba, and in the plural number 'Sálabán, and 'Sálbán. In the *Cumār-cá-cha'nda*, these 'Sálavas, or 'Salbans, are mentioned, in the same page with 'SACA, or 'SA'LA-VA'HANA, and as existing at the time this *Purán'a* was written. The copy of that section of the *Scanda-purán'a* in my possession, was written about 230 years ago in *Gurjar'át*: and the writer or transcriber, well knowing, that 'Sávaca was a title of 'SACA, or 'SA'LA-VA'HANA, wrote first 'Sávaca, instead of 'Saca; but recollecting himself, and finding that there was a redundant syllable in the verse, he drew two small strokes with the pen across the middle syllable, showing, that it was to be left out, and the whole word to be read 'Saca. In the *Lucknow* copies of this section, no mention is made of 'Saca, and the whole verse is omitted.

THE copies from *Chitra-cûta*, have the whole verse; but the name of 'Saca is variously written, sometimes 'Sakra, 'Sraca, &c. These readings are obviously erroneous. There were no other copies of that section at *Benares* but those procured from *Chitra-cûta*, and *Lucknow*, till I was lately presented with a neat copy, 230 years old, from *Guja-*

śat, by a *Pandit* of that country. The *Lucknow* copies are tolerably accurate, but those from *Chitra-cūta* are miserably mangled, through the carelessness of transcribers. The passage relating to *‘Saca*, is in the following words. *Tatah trisū sahasrēshu ‘sate chāpyadhicēshu cha; ‘SACÓ nāma bhavishyas’cha yōtidāridra hārakah:* and whether we read *‘Saca* or *‘Savaca*, it points to the same individual.

THE IDEA that SA’EIVA’HANA was borne on a tree, cross, or *furca*; they might have borrowed from the *Manicheans*, who represented CHRIST stretched upon a tree. *Vāhana*, *bāhana*, and *vāha* or *bāha*, are nouns derived from the verb *vah*, *veho*, to carry; and used both in an active and passive sense. Thus *Havya-vāhana* is one of the titles of *Agni*, or fire. *INDRA* is called *Mégħa-vāhana*, or the cloud borne; *Gand’ha-vāha* is the wind, from its being the vehicle of perfumes. The clouds loaded with water are called *Vāri-vāha*. Thus *Śāl-bah*, *Hāl-bah*, *‘Sal-bāhama*, &c. may signify either, he who carries his cross, or who was borne, or exalted upon the cross. *Crucifer* is one of the titles of CHRIST, perfectly answering to *‘Sāla-bāha*.

THE *Hindus* are very fond of forms, or emanations, which they consider to be the same with the original, from which those emanations sprang: and disciples are very often considered as so many forms of their masters. It is then very possible, that they should have considered the Apostle and disciple, who first preached the Gospel in *India*, as a form of CHRIST, or as CHRIST himself, after several centuries had elapsed: and thus possibly have mistaken the year of the death of the form, or disciple,

for that of his principal. Now some of the Apostles lived to a great age; St. THOMAS, for instance, is supposed to have lived seventy-three years, and to have suffered martyrdom about the seventy-fourth or seventy-fifth year of the *Christian Era*.

THE year of the death of VICRAMA'DITYA, and that of the manifestation of 'SA'L-BA'HAN, are acknowledged to be but one and the same; and they are obviously so. According to the *Cumāricā-c'hāṇḍā*, that remarkable year was the 3101st of the *Cali yuga*, and the first of the *Christian Era*, thus coinciding also with the *Samaritan text*, which is a remarkable circumstance.

SOME learned *Pandits*, from the western parts of *India*, are of opinion, that the era of VICRAMA'DITYA was originally reckoned from the first year of his reign, in the year 3044; and that, after a reign of fifty-six years, his death happened in the year 3101.

THIS was certainly the opinion of the author of the *Cumāricā-c'hāṇḍā*, and of the *Pandits* who assisted ABUL FAZIL, who says, in his summary of the history of the Kings of *Málava*, that VICRAMA'DITYA's era began the first year of his reign; and this makes this legend more consistent and probable.

IN the *Vṛihat-Cathā*, 'SA'LI-VA'HANA is called *Nṛī-sinha*, or the man-lion, answering to the lion of the tribe of JUDA; and one of the forms of BUDD'HA is called *Nṛī sinha*, both by the *Paurān'ics*, and the *Baud'dhas*. 'Saṣṭi sinha, or the energetic lion, is also the name of 'SA'LIVA-

HANA in the appendix to the *Agni-purāṇa*. According to the *Vṛhat-cat'hā*, VICRAMA'DITYA marched, from his capital city *Pātali putra*, or *Patna*, to wage-war against NRY-SINHA King of *Pratish'hāna*.

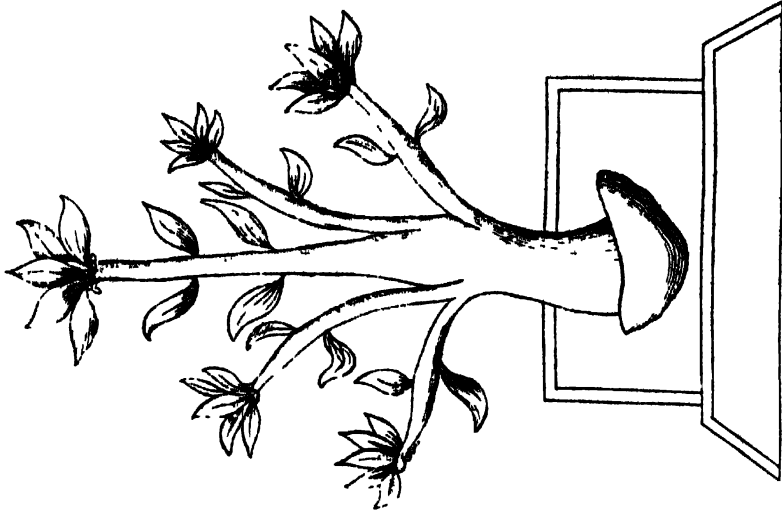
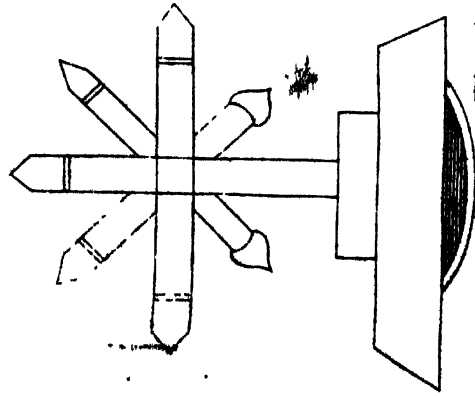
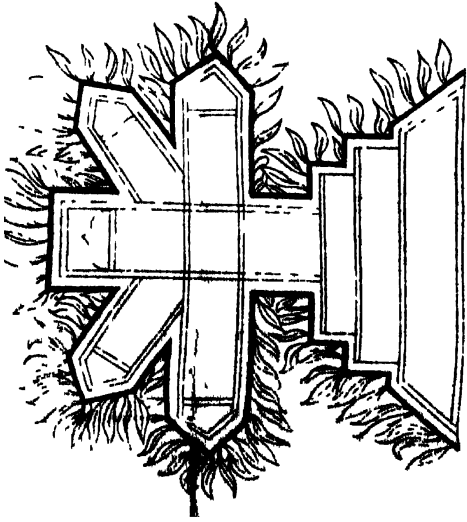
VI. THE cross, though not an object of worship among the *Baudd'has*, is a favourite emblem and device with them. It is exactly the cross of the *Manicheans*, with leaves and flowers springing from it, and placed upon a mount *Calvary*, as among the *Roman Catholics*. They represent it various ways, but the shaft with the cross bar, and the *Calvary* remain the same. The tree of life and knowledge, or the *Jambu* tree, in their maps of the world, is always represented in the shape of a *Manichean* cross, eighty-four *Yōjanas* (answering to the eighty-four years of the life of him who was exalted upon the cross) or 423 miles high, including the three steps of the *Calvary*.

THIS cross, putting forth leaves and flowers, (and fruit also, as I am told) is called the divine tree, the tree of the gods, the tree of life and knowledge, and productive of whatever is good and desirable, and is placed in the terrestrial *Paradise*. AGAPIUS, according to PHOTIUS*, maintained, that this divine tree, in *Paradise*, was CHRIST himself. In their delineations of the heavens, the globe of the earth is filled up with this cross and its *Calvary*. The divines of *Tibet* place it to the S. W. of *Meru*, towards the source of the *Ganges*. The *Manicheans* always represented CHRIST crucified upon a tree among the foliage. The *Christians* of *India*, and of St. THOMAS, though they did not ad-

* Phot. Biblioth p. 403.

mit of images, still entertained the greatest veneration for the cross. They placed it on a *Calvary*, in public places, and at the meeting of cross roads; and it is said, that even the heathen *Hindus* in these parts, paid also great regard to it. I have annexed the drawings of two crosses, from a book entitled the *Cshétra-samása*, lately given to me by a learned *Baudd'ha*, who is visiting the holy places in the countries bordering upon the *Ganges*.* There are various representations of this mystical symbol, which my friend the *Jati*, could not explain to me; but says, that the shaft, and the two arms of the cross, remain invariably the same, and that the *Calvary* is sometimes omitted. It becomes then a cross, with four points, sometimes altered into a cross *cramponné*, as used in herakdry.

IN the second figure, there are two instruments depicted, the meaning of which my learned friend, the *Jati*, could not explain. Neither did he know, what they were intended to represent: but, says he, they look like two spears; and indeed they look very much like the spear and reed, often represented with the cross. The third figure represents the same tree, but somewhat nearer to its natural shape. When it is represented as a trunk without branches, as in *Japan*, it is then said to be the seat of the supreme ONE. When two arms are added, as in our cross, the *Trimurti* is said to be seated there. When with five branches, the five *Sugats*, or grand forms of BUDD'HA, are said to reside upon them. Be this as it may, I cannot believe the resemblance of this cross and *Calvary*, with the sign of our redemption, to be merely accidental. I have written this account of the progress of the *Christian* religion in *India*, with the impartiality of an historian,



*The Calpa-vriesha of the Bauddhas which is
the same with the Cross of the Manicheans*

fully persuaded, that our holy religion cannot possibly receive any additional lustre from it,

THE word *Mlech'ha* in Sanscrit, does not signify literally a 'foreigner' but it is generally understood in that sense by the *Paurāṇics*, when announcing, in a prophetic style, the different powers who were to rule over India. Hear now, says the author of the *Vishṇu-purāṇa*, hear now, what will come to pass in these times: powerful Kings among the *'Aryya-Mlech'has* will appear; they will subvert the reigning religion, spoil and deceive the *Prajās*, or the people.

IN the *Bhāgavata*, they are called *Abrahmavarchasāḥ* in the plural, and *Abrahmavarchāḥ* in the singular; because, as they understood not the fundamental tenets of their own religion, through their spiritual blindness, and the hardness of their hearts, they gave it up to embrace a new one.

IN the *Brahmāṇḍa* we read, then will come the *'Aryya-Mlech'has*, who will seduce the people; they will be proud, and at the same time distrustful, as if constantly alarmed.

IN the *Vāyu-purāṇa*, it is declared, that generations of Kings will rise, and set like the sun. Then will come the *'Aryya-Mlech'has*, who will forsake the *Dharma*, religious creed, *Carma* worship, *Tīrtha* the places of pilgrimage of their ancestors; they will seduce the people with their new doctrine, and will grow worse and worse every day. After them *Sarva Mlech'ha*, all sorts of foreign, and impure tribes, will overrun the country.

SUCH is the character given of these good 'Aryyas, called *Avarriam*, and *Abraiam*, as well as their Apostle, even as low as the times of M. POLO in the 13th century. From *Abáryyam*, the *Paurá-nics* probably made *A-Brabma*, in order to shew their contempt of them, but more particularly in the latter times, when they grew worse and worse; and M. POLO speaks of some of the *Abraiam*, or *Abrami-am*, nearly in the same terms. Yet in his time the denomination of *Avarriam*, in Sanscrit *Aváryyam*, and *Abáryyam*, was applied to them: and he was told that it signified good and pious men.

I HAD, for a long time past, particularly inquired from the *Baudd'has* whether they knew any thing of the wars of BUDD'HA with TEVE-TAT;* but I was always answered in the negative. It was my fault in some measure; I did not make use of the other synonymous names of that enemy of the religion of BUDD'HA. I mentioned before, that I supposed, that TEVE-TAT was a corruption from DE'VA-TASHTA, synonymous with DE'VA-TWASHT'A', or DE'VA-SILPÍ, the divine artist, or carpenter; who is more generally known under the name of VIS'VA-CARMA, or the universal artist. Under this last appellation, TE'VE-TA'T is known to them. Soon after a learned *Jati* presented me with a book called the *Budd'ha-charitra*, with leave to take a copy, in which the wars of BUDD'HA, with VIS'VA-CARMA, or DE'VA-TWASHT'A' are related. It is a most voluminous work, and still it is incomplete, and the feat of war was in *India*.

* In the *Lalita vistára purána*, which was brought by Major KNOX from *Népál*, the name of *Budd'ha's* kinsman and rival is DE'VADATTA (answering to Decadatus). It is probable, that LALOUSIERE'S *Tevetat* is a corruption of the name of DE'VADATTA. H. T. C.

ESSAY VI.

PART I.—CHAPTER I.

*Of the two TRI-CU'T'A'D'RI or MOUNTAINS with three Peaks;
one in the N. W. and the other in the S. E. quarters of
the Old CONTINENT.*

I. TRI-CU'T'A'D'RI, the mountain (*Adri*) with three peaks (*Tri-Cûta*,) answers to Τριμυρὸς, and Τριμύριος in *Greek*: for in that language *μυρὸς* signifies properly a peak, summit, and implicitly a headland, or promontory. POLYÆNUS calls *Mount Méru* or *Meras*, *Tri-coryphus*: it is true, that he bestows improperly that epithet on *Mount Méru* near *Cabul*, which is inadmissible. *Méru*, with its three peaks on the summit, and its seven steps, includes and encompasses really the whole world, according to the notions of the *Hindus*, and other nations, previously to their being acquainted with the globular-shape of the earth. I mentioned in the first part, that the *Jews* were acquainted with the seven stages, *Zones* or *Dwîpas* of the *Hindus*: but I have since discovered a curious passage from the *Zohar-Manassé* on the creation, as cited by BASNAGE in his history of the *Jews**. "There are," says the author, "seven earths, whereof one is higher than the other; for the holy-land is situated upon the highest earth," and *Mount Môriah* (or *Méru*) is in the middle of that holy land. This is the hill of God, so often mentioned in the old Testament, the mount of the congregation,

* See English Translation, p. 247.

where the mighty King sits in the sides of the north, according to ISAIAH, and there is the city of our God.* The *Méru* of the *Hindus* has the name of *Sabhá* or the congregation, and the gods are seated upon it in the sides of the north. There is the holy city of *Brahmá-puri*, where resides BRAHMA with his court, in the most pure and holy land of *Ilávratta*.

THUS *Méru* is the worldly temple of the Supreme being, in an embodied state, and of the TRI-MURTTI or sacred *Triad*, which resides on its summit, either in a single, or three-fold temple, or rather in both: for it is all one, as they are one and three. They are three, only with regard to men involved in the gloom of worldly illusion: but to men, who have emerged out of it, they are but one: and their three-fold temple, and mountain with its three peaks, become one equally. Mythologists in the west called the world, or *Méru* with his appendages, the temple of God, according to MACROBIUS.

HENCE this most sacred temple of the Supreme being, is generally typified by a cone or pyramid, with either a single chapel on its summit, or with three; either with, or without steps.

THIS worldly temple is also considered, by the followers of BUDDHA, as the tomb of the son of the Spirit of heaven, whom I conceive to be the first man, re-emerging in every *Calpa*, or the first lawgiver, often confounded with the first man. His bones, or limbs, were scat-

* ISAIAH C. 14, v. 13. psalm 48, &c.

tered all over the face of the earth, like those of OSIRIS, and JUPITER ZAGREUS. To collect them was the first duty of his descendants and followers, and then to entomb them. Out of filial piety, the remembrance of this mournful search was yearly kept up, by a fictitious one, with all possible marks of grief and sorrow, till a priest came and announced, that the sacred relics were at last found. This is practised to this day by several *Tartarian* tribes of the religion of BUDD'HA; and the expression of the bones of the son of the spirit of heaven is peculiar to the *Chinese*, and some tribes in *Tartary*.

THE *Bauddhists* in this country are so close, reserved and ignorant, in general, that hardly any information can be obtained on this subject. Besides, they acknowledge, that it is so awful a theme, that they really avoid to make it the subject of conversation. They confess, that the pyramids, in which the sacred relics are deposited, be their shape what it will, are an imitation of the worldly temple of the supreme being, and which is really the tomb of the first of his embodied forms; or of his son, in the language of the *Chinese*, *Tartars* and of the *Greeks* also, who were little acquainted with the system of emanations, and incarnations. They also declare, that many of these pyramids do not really contain the bones of the *Thácur*, or Lord: and though they are to be supposed, and asserted to contain them, the real place, where they are deposited, should remain unknown; in order to prevent profanation; exactly like the various tombs of OSIRIS. For this reason, the sacred relics, instead of being deposited in the pyramid, are always placed in a small vault deep under ground, at some distance from it, as at *Sárnátha* near *Benares*.

THIS monument is about fifty feet high, of a cylindrical form, with its top shaped like a dome. Similar monuments, but never more than three or four feet high, are often erected, by *Hindus*, upon the spot, where a married woman burned herself with her husband. These monuments are in general called *Satî*; and the enormous one at *Sâr-nâth* is a sort of *Satî* over the bones of BUDD'HA. According to tradition, it was erected over the ashes of those, who fell there in battle, in the invasion of the *Muslemans*. But this is impossible; as this monument is the chief and principal piece of that sacred fabric, which was begun many years before the said invasion. The only part that was finished is the tomb of BUDD'HA: all the others, which were intended for the splendor of the place, and the convenience of the royal inhabitants, and priests, remaining in an unfinished state. The secret vault, into which these relics are deposited, in general, is called the *Thâcur's Cûti*, the room or cell of the Lord; and in the inscription found amongst the ruins above this cell, it is declared that ST'HIRAPĀLA and VASANTA, sons of a King of *Gaur* in *Bengal*, built this *Cûti*. It follows from hence, that these were the persons, who deposited there the *Thâcur's* bones. In the above inscription it is declared, that this happened in the year of VICRAMA'DITYA 1083, or of our lord either 1017 or 1027,* In the inscription found at *Islâmâbad*,† these relics, consisting of a few bones, are said to have been deposited in two brass vessels in a *Cûti*, or room under ground. In the account of the disco-

* As. Res. v. 5. p. 133.

† As. Res. v. 2.

very of two urns at *Sárnathā*, it is mentioned that the *Cūti* was eighteen cubits or twenty-seven feet; under ground.* There the relics were deposited, in an urn, enclosed in a vessel of marble, in the shape, and of the size of the famous *Barberini* monument. There were a few bones only, with various trinkets, which consisted of pieces of coloured glass, all of them perforated, with thin leaves of gold, and some coarse pearls. These ornaments are by no means a proof that these bones were those of a female. It is more probable, that they formed a chaplet used by devout people, or rosaries and bracelets, with which the statues of BUDD'HA are generally decorated. The marble vessel, which contained the urn, is more highly finished than that of the *Barberini* monument. The urn itself is of a more elegant form than that in the above monument. It is in the shape and of the size of a chalice; it has no carved figures, but elegant mouldings, exquisitely finished, and is of green marble. I suspect the whole to be of foreign workmanship; for it is totally different, both in shape and workmanship, from vases in use among the *Hindus*, either at this day or in former times. PHILOSTRATUS informs us, that statues, by *Grecian* artists, were by no means uncommon in the N. W. parts of *India*. STRABO says also, that altars of *Grecian* workmanship were often found in the western parts of *India*; and ARRIAN, in his *Periplus*, takes notice of altars, and of small temples in the *Grecian* taste, near *Barygaza* or *Baroach*. The practice of thus preserving the bones of BUDD'HA is of great antiquity; for it is expressly mentioned by CLEMENS of *Alexandria*, who says that they

* As. Res. vol. v. p. 131.

were deposited under a pyramid. In the history of China, we read, that in the year 335, a bone of Fo was sent from India to the Emperor of that country, who was highly pleased with this precious relic: though his minister HANYU made a very spirited remonstrance against this innovation; and which is to be found in Du HALDE's *China*.

THE followers of BRAHMA' are not addicted to the worship of dead men's bones, and I know but one instance to the contrary. At *Jagan-nât'ha* they have a bone of CRISHNA, which is considered as a most precious and venerable relic; so much so that few people are allowed to see it: and *Hindus* are not fond of making it the subject of conversation, any more than the *Baudd'has*.

THE shape of these monuments is always, either that of a pyramid, or of a cone, with some trifling deviations occasionally. Thus, the cone assumes the shape of a trump-roof: sometimes it is formed by the revolution of a *cymatium*, or Ogive round an axis: and these two forms are generally said to be in the shape of a bell. *Mount Meru*, and the seven stories, are represented in the shape of a trump, by the divines of *Ceylon*, according to Mr. JOINVILLE's delineation in the seventh volume of the *Asiatick Researches*. The pyramid is equally subject to the same variations, the hips, or angles being sometimes in the shape of a *cymatium*. As *Mount Méru* is also represented of a cylindrical form, the tombs of the *Thácur* are equally made in that shape, as that of *Sárnátha*. Sacrifices and offerings are never made in *Tibet*, without placing before the devotees a cone or pyramid, the image of *Méru* and of the worldly *Linga*. *Bráhmens*, instead of either, make a cylinder

of earth, and for the same purpose. This they call the primeval *Linga*; which was represented in the west, and to this day in the *Dekhin*, by a cone, according to ARNOBIVS and other authors.

THE steps, stories, and retreats are always omitted in *India*: but I was told, that it was considered as immaterial. The seven stories, however, are marked by lines, in a delineation of the worldly temple and tomb of BUDDHA, in a large map of the world accompanying the *Cshetra-samāsa*, a geographical treatise in my possession. This representation of the mountain of GOD struck me forcibly, and was the occasion of further inquiries into this subject. It is of the same shape with the pyramids of *Egypt*: the base only is a little shorter, with a small flat top, with a chapel in honor of BUDDHA. The sides are smooth, as in the pyramids, but the seven stories are represented by lines; which brings it still nearer to the tower of *Babel*. The pyramids of *Egypt* are not all alike: some are in the shape of a cone; one with recesses is mentioned by DE NOL; who notices also another with a circular base. The square base of this worldly temple is peculiar to the *Buddhists* of *Tibet*: for in *India* the *Brāhmens*, and the *Jāinas*, always give it a circular form. In the representation of it in the *Cshetra-samāsa*, it is a square. Though the dimensions are much neglected, yet in all these monuments at *Benares*, the most modern, and of course most perfect, are of a conical figure; the perpendicular section of which, through the center, is an equilateral triangle. There is always a small temple on the summit, except one near *Benares*, at a place called *Canow'y*. Such of these monu-

ments as belong to the *Baudd'has* are called the temples of BUDD'HA; they might also be called the temples of BALA or BALAS, one of the titles of BUDD'HA; but little known now, and more particularly so to the vulgar. The word BALAS, properly pronounced, sounds exactly like BELOS in *Greek*, and BELUS in *Latin*. May we not then reasonably suppose, that the temple and tomb of BELUS at *Babylon*, was precisely a similar monument; and calculated for the very same purpose.

ON the summit of it was a chapel, dedicated to BELUS, according to HERODOTUS. DIODORUS the *Sicilian* says there were three; but this is immaterial: for BALAS is three and one. Besides, the temple of HERODOTUS probably consisted of three chapels. About the center of the tower, in the middle, was the tomb of BALAS, and near it, in the body of the pyramid also, another chapel, exactly as in the great pyramid at *Giza* in *Egypt*. It is probable, however, that the bones of BELUS were not deposited in the ostensible tomb, but were concealed, in a secret vault, in some other part of the pyramid or tower. It appears then, that the pyramids were similar fabrics, and intended for the very same purpose. For the *Egyptians*, the *Phenicians* likewise, had their BELUS, as well as the *Babylonians* and *Hindus*: and this BELUS, it is probable, was originally the same, through these different countries. In the eastern parts of *Bengal*, particularly toward the *Sunderbunds*, there is, almost in every village, a representation of this worldly temple, of earth with steps. The whole is neatly plastered, with a whitish clay: and, on stated festivals, the statue of some favourite deity is placed on the sum-

mi, in a small, but handsome portable temple. Some of these fabrics are from five to twenty feet high; according to the circumstances and zeal of the villagers. These are considered as a representation of mount *Méru*; and, in the inscription of *Sárnáth*, the conical mount, near the sacred repository, is called *Méru*.

LIKE all the temples and tombs of *Belus* in *India*, the pyramids had no opening whatever, except one or two. It is however pretty certain, that all the pyramids were not intended for the reception of the bones of *Belus*. Many were probably intended for the burial of a very few exalted and sacred characters, like the grand *Lamas* of *Tibet*, with a few others, who are always buried under pyramids: but these are acknowledged to be forms of *Budó'ha*, though of an inferior rank. As the *Egyptians* concealed, most carefully, the real place, where their *Belus* was entombed; it is not unlikely that the great pyramid was only an ostensible one, and of course allowed to remain open. For we are told, that the body of him, for whom it was intended, never was deposited there, or if deposited, it was not into the ostensible tomb, but into some secret place under the pyramid. The limbs of *Osiris* were buried separately, and on the very spot where *Isis* found them: and he was torn into fourteen pieces; others said six and twenty. The general opinion is, that *Isis* collected all the limbs in a coffin, like which she made many others, and presented them to several cities through *Egypt*; assuring privately every one, that they possessed the real one. It is supposed, that *Osiris* was entombed near *Memphis*, though the spot never was known.

THE tower of *Babel* seems then to have been the worldly temple of

the spirit of heaven, and the tomb of his son, either the first man of the *Calpa*, or the most ancient king and legislator of the country.

THERE were four *Adams*, and four *Budd'has* also; and we are now under the fourth, according to the traditions of the *Muslemans*, and of the *Baudd'has*. ADAM's body was, at his own request, entombed, in a cave or vault, called *Alconuz*, in a mountain in the center of the world; and of course the *Méru* of the *Hindus*, and represented by artificial hills, either of stone or earth, and of various shapes, like *Méru*.

HIS descendants removed to that holy mountain; the wicked offspring of CAIN were allowed only to dwell at the foot of it: whilst that of SETH were seated higher up, as far as the top; where they lived in great sanctity, and purity of manners, every day worshipping GOD on the summit of the mountain, and visiting the body of ADAM in his vault, as the means of procuring the divine blessing.* This mountain, in the center of the earth, with seven steps or stories, or mount *Méru*, was really the mountain of GOD, the worldly temple of the spirit of heaven, and the tomb of his son. COINTUS of *Smyrna*, says, that this holy mountain was depicted upon the shield of ACHILLES; and that on its summit resided the efficacy or *Śakti* of the world, or of the supreme being, towering to the skies: and he adds, that this most sacred place was very difficult of access.

THE limbs, or bones, of this son of the spirit of heaven, PUENEU in *Chinese*, BUDD'HA, OSIRIS, DIONYSIUS or ADAM, were dispersed all over

* *Anc. Univ. Hist.* vol. I. &c.

the world. ADAM's remains, after the flood, were divided among his posterity, and his skull fell to the share of SHEM, who deposited it in a vault on mount *Calvary*, near the holy hill of *Moriah* or *Mereh*. The inhabitants of *Ceylon* showed formerly one of his teeth; and they have now one of his tusks: for their last ADAM, or BUDD'HA, was incarnate in the shape of an elephant; and ascended into heaven, from the summit of the peak of ADAM. *Muslimans*, who were settled in the *Peninsula*, and in that island, at a very early period, concluded, and not without some plausible ground, that this BUDD'HA must have been ADAM: and accordingly, *Persian* writers, gravely inform us, that ADAM was banished to *Ceylon*, and thence translated into heaven, from the summit of the peak, which was denominated after him. ZARADES, ZOROADES or ZARAT was the name given, by the *Chaldeans*, to the eldest ZOROASTER, claimed equally by the *Persians*. Some say that BELUS taught the *Chaldeans* astronomy, whilst others insist, that it was ZARADES or ZOROASTER, whom several learned men consider as the same with MIZRAIM, the son of HAM. Be this as it may, the eldest ZARADES was the son of OKOMAZES, the spirit of heaven, according to SUIDAS. Like ADAM, he directed that his bones should be carefully preserved: his precepts for a long time were complied with; and his relics, carefully and secretly entombed, like those of BALA or BUDD'HA, like the limbs of OSIRIS, and like those of BACCHUS at *Delphi*; became an object of worship. The eldest ZOROASTER, called ZARADES, ZOROADES and ZARATES by the *Chaldeans*, is probably the same with BELUS and the SAURID of Arabian writers: and the Goddess ZARETIS was probably his consort. Several learned oriental writers insist that ZOROADES, or ZOROASTER assisted

at the building of the tower of *Babel*; and that he is the same with *ZOHAC* or *NIMROD*, and that under the name of *SAURID* he built the great pyramid in *Egypt*. The *Parsis* in *India* say, that he was a native of *China*; but I suppose that they originally meant *Bactria*, seemingly the native country of the *Chinas*, according to the *Purānas*, and the earliest *Persian* and *Arabian* authors, who say that formerly the country about *Samarcand* was called *Chinistan*, and its inhabitants *Chinas*.*

II. THE three peaks of *Méru* are, one of gold, the other of silver, and the third of iron, stone or earth, which is considered as the same: Thus, the iron age is generally called the age of stone or earth in *India*. In the west, mankind was produced from stones, thrown by *DEUCALION* and *PYRRHA* behind their backs, in the beginning of the iron age; and from them sprang the present stony or stone-hearted race.

IN consequence of this, some powerful princes are declared, in the *Purānas*, and other books, to have erected three mountains, of gold, silver and stone; or three pyramids or conical hills, like the three peaks of *Méru*, though the materials, they were built with, were only stone or clay. *POLYANUS* has given us the names of these three peaks, *Menon*, *Candaské* and *Cerasibé*; which, however distorted, and disfigured, may be still traced back to their original standard. For this purpose let us suppose, that a traveller asked a *Hindu* the names of these three peaks, the *Hindu* probably answered *Mana*, *Cun't'hac'hya*, *Cailásópi*, or literally in *English*, *MANA*, *CUN'T'HA'* thus called, *CAILA'SA* also. The first peak, it is

* D'HERBELOT'S *Biblioth. Orient.* voce *Tarikh* and *Tabari*. Sir W. OUSELEY'S *Translation of Ebn Haukal* in the *Appendix*.

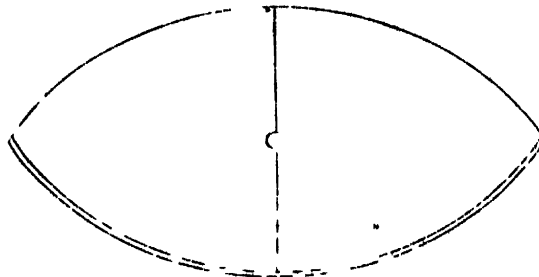
true, is not known under that name; but it is described as such, and this appears to be its real name. Upon it BRAHMA' resides, and his seat is called *Brahmā-puri*, or the town of BRAHMA': it is also *Mānā-puri* the town of *Mānā*, or of his heart, or the delight of his heart, near the famous lake of *Mānā* or *Mānasa*, the waters of which, proceeding from heaven, are the delight of his heart likewise. They are otherwise said to proceed from his heart, and indeed every thing there is from his heart. The obvious meaning of *Mānā* is mind (*mens*), but it is always rendered here *heart*, because the mind proceeds from the heart, according to the *Hindus*, who even are able to trace its track through the body to the head. The radical name of *Vai-Cun'tha* is *Cun'tha* an idiot. The name of VIŠHNU's mother in one of his incarnations; during the fifth, *Manuśā-tara*, was CUN'THA' or the idiot; and as she was very much so, she was called VI CUN'THA', VIŠHNU, since that time, is surnamed VAI-CUN'THA: and after him, the peak on which he resides is denominated likewise. In *Caśāsōpi*, *api* signifies also. This *Tri-cūṭāpī*, or mountain with three summits, is declared to be the lord of mountains; and of course the other *Tri-coryphean* hills, for there are many, are considered as inferior to it. The next in rank is the *three-peak-land* in the N. W., emphatically called the *White island*; the *land of the Moon*; a *celestial earth or region*, a *terrestrial heaven or paradise*.

THE next to this is the *Tri-cūṭā* mountain in the south-east, including the peninsula of *Málacá*, *Sumātrā* and *Ceylon*. These two *Tri-cūṭās* are declared to correspond to each other, in their respective quarters, and their *Tēja*, *Cirn'ā*, or *splendor*, are the constant theme of the *Purānics*, and other *Hindu* writers. These two *Tri-cūṭas*, or *three-peak-*

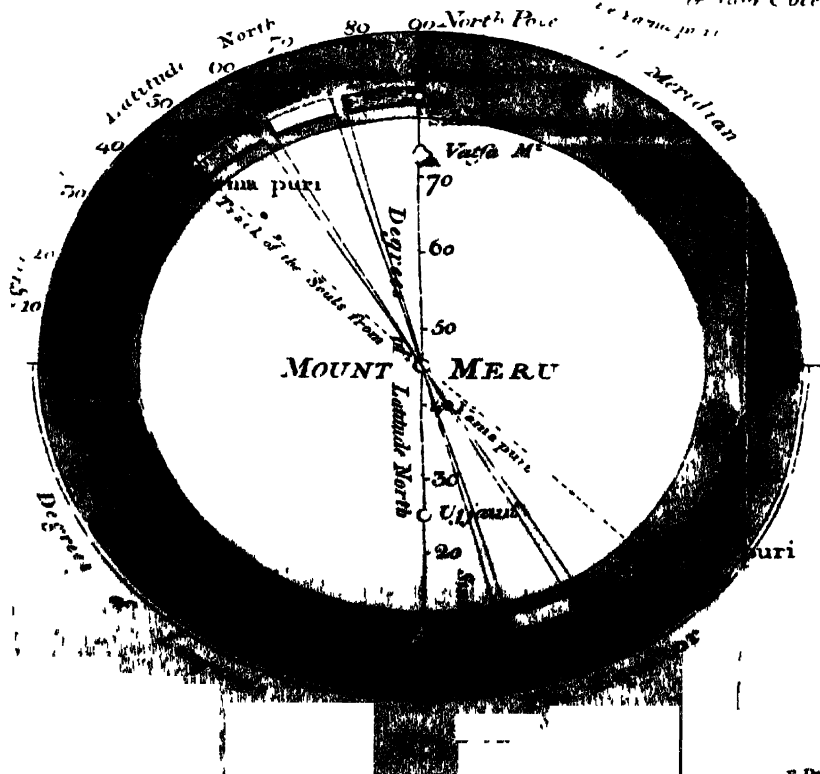
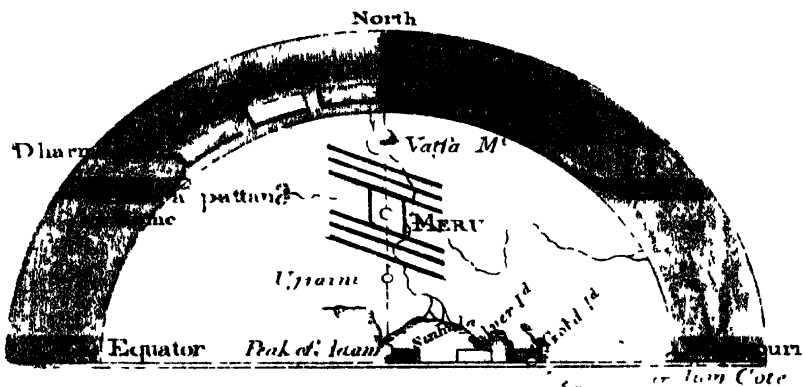
lands may probably be the two islands of *Cornu*, east and west, of the ancients. When speaking in general terms, the *Paurānics* sometimes place them, one in the east, and the other in the west. But numerous and explicit passages show, that they are situated in the N. W. and S. E. quarters of the old continent. There are however some few passages, which place them north and south of *Méru*; and *Lancā* is now considered as situated on the equator, exactly to the south of *Ujjayintī*, *Méru*, and opposite to the island of the moon. The last assigned situation was the first I hit upon, on my first acquaintance with the *Purāṇas*, and perplexed me very much; as the *Pandits*, I was acquainted with, insisted that the *WHITE* island, one of the peaks of the western *Tri-cūṭa*, was in the N. W. quarter, that is to say, it occupied the whole space between the N. W. and N. points: and that likewise the eastern *Tri-cūṭādrī* was between the S. and S. E. points. Unfortunately, they could not then produce the necessary vouchers from their sacred books; but in the mean time, they exhibited the accompanying map of *Jambu*, in order to illustrate the subject:

In the plate, the map of *Jambu* is represented under three different projections. The first is according to the ideas of the *Paurānics*, in which one half of the equator is obviously combined with another half of the meridian, on the plain of which the map is projected. I have marked the degrees of longitude upon the equator, and the degrees of latitude north, upon an arch of the first meridian. No notice is ever taken of these particulars by the *Paurānics*; but a little reflection will

• **THEY'VE GOT TO BE ABLE TO**



N^o 11.



show the original design of this diagram, though the projection be ever so disfigured.*

THE true projection of it should be in the shape of what the ancients called the bottom part of a sling: and this was admitted by DIONYSIUS PERIEGETES. POSIDONIUS before him admitted of it also: but he insisted, that the greatest length of this projection was in a north and south direction. This sort of projection is represented in the third number of the same plate. Number II. represents the same portion of the globe, that is to say the northern part of the old continent, as projected in the usual form; upon the plain of the first meridian.

IN the first and second numbers, the two *Tri-cū'tadris*, or islands, abounding with *Cirn'n'a* or resplendence, are represented diametrically opposite, with all due symmetrical arrangement in every part, to which the *Hindus* will always sacrifice truth. There are, however, some general outlines, which are strictly true. There are really three islands, or *dwt'as* in the south east, and as many in the north west quarter of the old continent, corresponding exactly, or nearly so, to each other; and they have also the same names. The rest of the superstructure owes its origin, to the fertile and inventive genius of the *Hindus*. The idea however is by no means a modern one; nor was it confined to *India*: for ancient writers in the west acknowledged two islands, called *Cerne*, one in the east, and the other in the west: the latter, called also *Cyrene*, was placed near the straits of *Hercules*; and was said to consist equally of

three islands. The eastern *Cerne*, it is true was said to be near the eastern shores of *Africa*. This mistaken notion arose, through the information of the *Hindus*, who will have it that the *dwiṣṭā* of *Lancā* really joins the shores of *Sanc'ha*, *Zeng* or *Africa*. The *Nubian* geographer adopted this idea, as well as *Arabian* writers in general.

THE Gods are represented as travelling from one *Tri-cūṭa* to the other; and the grand depot for souls after death, is at *Yama-puri*, in the Peninsula of *Mālācā*; from which, on certain days fixed for that purpose, they set off together for *Dharma-puri* in the north west, which they reach after a painful march of twelve months.

THESE three islands in the south east, are in general called *Lancā*; and in every one of them is supposed to be a city called a *Lancā-puri*, and there is actually a place of that name in *Sumatra*, according to Mr. MARSDEN. The walls of these three cities are of the same metal with the soil of their respective islands: of course the walls and palaces of *Lancā-puri* in the *Gold-Island*, are of that metal: and of silver in the *Silver-Island*. In the island of iron, brass, stone or clay, the walls are of these materials: but more generally they are said to be either of iron or brass. The *Gold Island*, or *Suvarnā*, is also called *Maha-Lancā* and *Mā-Lancā*; from which is probably derived its modern name of *Mālācā*; which is also called *Malāc'hya* in the *Dēvi purāṇa*.

THESE islands were well known to the ancients, under the appellations of *Chryse*, *Argyrea*, and *Taprobané*. That of *Taprobané*, though generally understood of *Ceylon*, was also extended to the three islands; for

STEPHANUS of *Byzantium* says, that *Argyrea*, the *Silver Island* or *Sumatra*, made part of *Taprobane* and very properly too: for *Taprobane* is obviously derived from the *Hindi* *Tāpu-Rāvana*, the island, or islands of *RA'VANA*, who was the lord of them, and whose name, in the spoken dialects, particularly in the *Dekhin*, is always pronounced *RA'SAN*. Their *Sanscrit* names are *Canakana* or the *Gold Island*; *Rajata* the silver one, and *Sinhala* is *Ceylon*. On the latter the epithet of *Iron Island* is never bestowed in any book which I have seen: but it is understood as a matter of course: it was called also the brass country by *PROLEMY*, though strangely misplaced by him.

FROM various documents, through different channels, he has introduced twice in his map of that country, this *Tri-cūtadrī*, first as three islands or *Peninsulas*, and also as three countries on the mainland, under the names of gold, silver and brass countries. *MR. DANVILLE* has proved, that the *Peninsula* of *Mālācā*, with most of the places belonging to it, are twice repeated, and made contiguous by him,

IN the *Gold Island*, or *Mā-Lancā*, is the abode of *Yama*, called *Yama-puri*, or in the spoken dialects *Jam-cote*, a place well known to *Arabian* and *Persian* writers. It is also called *Lancā-puri*, *Lancā-nagara*, the town of *Lancā*; and the straits of *Mālācā* are called, in the *Purāṇas*, *Lancā-dwāra*, or the gates of *Lancā** as we shall see in the course of this work. *CANCA* is another name of *YAMA* or *PLUTO*; and as the place of his abode is in *Mālanca*, according to the *Purāṇas*, the *Lancā-dwāra*

* *Scanda-purāṇa*, section of *TAPI-S'HAND'A*.

or gates of *Lancá*, the straits of *Máldá* might be called also with propriety the gates of CANCA, PLUTO or *Canca-dwára*. This denomination is never used now by the *Paurāṇics*; but there is no doubt; that it was so formerly: for the *Cancador* of ALI-COSHGI, and other early *Musleman* writers, is obviously derived from *Canca-dwára*, CANCA's door or gate. It is true, that they make a town of it, which they call also more correctly *Cancāner* for *Cancá-nūr*, which last is acknowledged to be the same with *Canca-nagara*, the town of CANCA: and in the *Dekhin* they always say *nur* or *nuru*, instead of *nagar*. This town is obviously the same, which is called *Cocco-nagara* or *Conco-nagaru* by PROLEMY. The country of CANCA is *Cancades'a* in *Sanscrit*; hence *Musleman* writers call it also *Gung-diz*.

Cancapuri or *Canca-nagara* is then the same with *Yama-puri* or *Juncote*, called also in the *Purāṇas* *Mahā-Lancá-puri*, or *Mā-Lancá*: and it is probably the same with that called *Balanca* by PROLEMY, and placed by him in Long. 164° and in $40^{\circ} 40'$ Lat. North. It appears however, that *Musleman* writers understood by it the town of *Saba*, or *Zaba*: for *Yama-puri* or *Jam-cote* is a mythological city and never existed.

We observed before that PROLEMY has introduced into his map the golden country, island or peninsula, not only twice; but that he has likewise introduced twice, most of the places belonging to that country. Accordingly *Conco-nagara* is again noticed under the name of *Coccoro-nagara*, or *Cocconagara*; from which *Musleman* writers have made *Cacaror* for *Canca-rai-ghur*, the house or place of abode of CANCA-RĀJĀ or YAMA: but they consider it as the same with *Cancāner*. This town

they call also *Canacor*, which is some place in the *Gangetic* provinces: but I have shown before, that *Canacor* or *Cancar* was the capital city of the country of *Gancar-deha*, or of the *Gangaridæ* in *Bengal*.

Jum-cote or *Lancá-puri*, which D'HERBELOT writes *Giamcout*, they place, with the *Hindus*, in the center of the *Peninsula*, in five degrees of Lat. North, and in Long. 176 or 175, according to ABUL FAZIL and others; and PROLEMY places *Balonca*, or *Má-Lancá-puri* in Lat. 4° 40' North, and in Long. 162. The longitude of *Lancá* or *Má-Lancá* may be ascertained from the *Purán's*; a circumstance very unusual. *Yama-puri* is declared in these sacred books to be the general rendezvous of the departed from all parts of the world, and from which they proceed in a body, with a proper guard, composed of the servants of YAMA, to *D'harma-puri*, which I shall show hereafter to be the purgatory of ST. PATRICK in *Hiran'ya* or *Suvar'neya*, the gold island in the west. The days and distances are accurately described, which summed up amount to 81,554 *Yójanas*.* The breadth of the world is 100,000 *Yojanas*, equal to 180° of longitude: and these 81,554 *Yójanas* answer of course to 146° 48', which subtracted from 180 degrees, leave 33; the half of which 16° 30' is the longitude of *Dharma-puri*, and, added to 146° 50' will place *Má-Lancá* or *Jum-cote* in long. 162° 20'. For these two places are at the furthest extremities of the earth, which forms a perfect circle, surrounded by a sea, every where of the same breadth. This singular route of the departed will be the subject of a separate paragraph. It passes through *India*, in the direction of the first range of

* *Gau'sa Purán's*.

snowy mountains. The *Pandits*, whom ABUL-FAZIL consulted, placed *Cancador* 1265 *Yójanas* from *Lancá*, or the peak of ADAM, which is in 90° of longitude, according to them. *Yama-puri* is accordingly 1205½ *Yójanas* from *Lancá*; some reckon 1242, which will place, *Yama-puri* in long. 178° 22'.

THE commentator on the *Súrya-Sidd'hánta*, has reduced that distance very much; for he says that *Lancá*, or the three islands, occupy a space of 30 degrees along the equator; and this will bring their assumed longitude of the easternmost shores of *Má-Lancá* nearer to its real one.

AS PROLEMY places *Má-Lancá-puri* in the same longitude with the *Paurán'ics*, he must have used the same *data*, and which he had probably received from the *Hindus* whom he conversed with at *Alexandria*. *Má Lancá* being, according to the *Purán'ics*, in the center of the *Peninsula*, it must be of course in about five degrees of Latitude North; and there it is placed by ABUL-FAZIL: and in 4° 20' by PROLEMY. *Má Lancá* is called in the *Puránás* *Yámala* and *Malaya*; which last denomination it still retains. It is styled also *Canchana-padda*, or with the golden skirts. It may be translated the country of the golden feet, a title assumed by the Emperors of *Ava*, and other Kings of that part of the world; and the *Malayín* breeze is as famous in the east, as the *Sabean* in the west: and its capital was also called *Saba*, or *Zaba*.

IN the beginning of the *Brahmánda-purán'a*, it is declared, that the strong hold of YAMA in *Tri-cúta*, that is to say the *Peninsula* of *Málaca*, is 100 *Yójanas* long, and 30 broad, which is sufficiently accurate.

PTOLEMY mentions there a place called *Malaiou-colon*, probably from the Sanscrit *Malaya-cūlam*, which implies a place on the borders or shores of *Malaya*: the same is called *Maletur* by MARCO-POLO; *Malaya-tír* and *Malaya-cūlam* are synonymous. *Peri-mula* in PTOLEMY, I suppose to be derived from the Sanscrit *Pari-Malaya*, which implies the same thing. For it is probable, that they were acquainted only with the *tíram, tír* or *cūlam* of the Peninsula: and *Canchana-páda* may also signify the foot, skirts of the golden mountain, or *Peninsula*.

THE next island is *Sumatra*, called in the *Puráṇas* *Rajata*, or silver island, the *Argyre* of the western geographers. In the *Vrīhat-catha* it is called *Naircéla* or *Nahoéra* and *Srímat*, or the fortunate, and synonymous with *Srímatra*.

THAT famous island is called now *Sumatra*, and by former European travellers *Symotta*. In the same book, and in the *Hitópadés'a*, it is called *Carpura*, or camphire island. In the spoken dialects, that word is pronounced *Capur* and *Caſur*. MARCO POLO gives the name of *Fanfur* to one of its provinces, probably for *Canſur* or *Campur* as it is now called. A beautiful lake on the island, is mentioned in the *Hitópadés'a*, under the name of *Padma'-nilaya* or the abode of PADMA'-DEVÍ.

It is also called *Mandara* in the *Puráṇas*; and, as it is represented as a most delightful country, it may be denominated *Su-Mandara*; and it was called *Samander* by former geographers. But it seems, that this appellation is derived from *Samander* in the spoken dialects of India, from the Sanscrit *Samudra*, which signifies the ocean. The author of the *Periplus* mentions an island near the Ganges called *Oceanis*; and EL-ENRISSI says that the island of *Samander* is near the Ganges. Probably the

author of the *Periplus* confounded it with *Sagara* island, a name of the same import, at the mouth of the *Ganges* and called also *Oceanis* by *Diodorus* the *Sicilian*. The context, however, of this author, and of more modern geographers, show that it cannot be the same island. *Salmasius* and others improperly laugh at the idea of an island at sea being called *Oceanis*. This *Oceanis* was probably the place of abode of old *Samudra*, the old man of the sea, often mentioned in romances in the east.

THE words *Samudra*, or *Samundur*, are pronounced *Sumundu* and *Mundu* in the dialects of *Ceylon*; and there is an island of that name mentioned by ancient geographers in the eastern seas, and supposed by them to be the same with *Taprobanè* or *Ceylon*; but *Stephanus* of *Byzantium* says that the silver island made part of *Taprobanè*, which is really the case. It is also called by them *Pulai-Simundu*, which I take to be a corruption from *Pulq-Simundu*, *Pulo-Symotta*, the island of *Simundu*, or *Symotta*. The description of that island, under the name of *Simundu*, does by no means agree with *Ceylon*: but is easily reconciled with *Sumatra*, though we know but little of the interior parts.

THE large lake called *Megisba*, with the metropolis, does not exist in *Ceylon*, but is probably that extensive lake to the south of *Menangkabow*, mentioned by *Mr. Marsden* in his map of *Sumatra*, from which several large rivers seem to issue. The harbour of *Hippuros*, or *Ipporus* in *Pulo-Simundu* is called *Aypoor* by *Danville*, and *Ippu* by *Mr. Marsden* from the *Sanscrit* and *Hindi* *Ī-pura* or *Ī-pu*, and in a derivative form *Ai-pura*, the town of the goddess *Ī* or *Bhāvānī*. From this lake issues the river *Andraguerii* or *Indergerree*, in *Sanscrit*

Indra-giri; because its source is in the *giri*, or mountain of *INDRA*, or *Maghabá*; from whom probably the lake in the plains below was denominated *Maghabá* or *Megisbá*, according to *PLINY*, and *Padma-nilaya* or the place of abode of *PADMA'-DE'VI* the consort of *VISHNU*, in the *Hitopadesa*.

From this lake issued two rivers, according to *PLINY*; one called *Palesimundus* flowed towards the south, and towards a town of the same name (perhaps the modern *Palembang*) which was the metropolis of the island, and had a famous harbour. The river divided then into three streams, the smallest of which was five furlongs broad, and the largest two miles nearly. Thus I translate this passage of *PLINY*: for it is impossible that three such large arms of a river should fall into a harbour. According to *Mr. MARSDEN*, this lake communicates with the river of *Palembang*: for, says he, the inhabitants avail themselves of this lake in transporting their goods to, and from *Palembang*.*

THE other river, toward the north, and supposed to issue from that lake, was called *Cydara*; probably because it flowed through the country of *Ru* or *Aru*, called *Dáru* by former *European* travellers: the capital of which, on its banks, was probably called *Cota-Ru*, or the town and fort of *Ru*. This is the largest river in the island, and of course its source far remote into the interior parts of the country. The river *Siac* seems to be a branch of it: and the *Cambar* is supposed to communicate with the river *Indra-giri*. Opposite to this, toward the west, another river flows from the mountains of *Indra-giri*, and is called *An-*

* *History of Sumatra*, p. 9.

Drapour or *Indrapour* from the Sanscrit *Indra-pura*; and I believe that the town is the same which is called *Andra-Simundu* by PROLEMY, and foisted into *Ceylon* by him, on a supposition that it was the same island with *Pulo-Simundu*; and I believe that this is not the only place in *Taprobane*, that belongs to *Pulo-Simundu*. The mountains of *INDRA*, or *Maghabá* in the island of *Sumatra*, are mentioned in the *Vr̥hat-cat'há*, under the name of *Baláhaca*, which is synonymous with *Mégha*, from its summit being capped with clouds; and *INDRA*, who presides over rain, resides above the clouds: hence he is called *ME'GA-HAVA'HANA*, *ME'GHA-BA'HANA*, and in conversation *ME'GHABA'N*, or the cloud borne. The other mountains in *Sumatra*, mentioned in the *Vr̥hat-cat'há*, are *M̐inása Vr̥tshabha*, and *Chacra*. Upon these four mountains, as many gods are, in the same book, declared to reside, and to travel occasionally in their self-moving cars to the *White Island* in the west, in order to pay their respects to *VISHNU*, and his consort *ABDHIATANAYA'*, or the daughter of the *Ocean*. *Náricéla*, another name for this island, implies its abounding with cocoa-nut trees, the leaves of which being agitated by the winds strike against each other, and seem to repeat the words *Boc-boc* or *Vac vac*: or the continual noise which they make is compared by the *Hindus* to what is called in *Hindí* *Boc-boc* or constant chattering. *Sumatra* is then the island of *Boc-boc*, *Vac-vac* or *Wac-wac* of *Arabian* authors; who say that the leaves of these trees striking against each other seem to repeat the word *Wac*.

SUMATRA appears to me to be the same island, in which *JAMBUUS* is supposed to have resided seven years, and from which he went to *Palibothra*. The inhabitants, says he, have two tongues, or lan-

guages; their own first; and probably the *Malay* was the other, which they spoke fluently, but I suppose only in the districts bordering upon the sea. JAMBULUS takes notice, that this island abounded with hot springs, which is true of *Sumatra*, but not of *Ceylon*. They had also an alphabet, consisting of twenty-eight letters, divided into seven classes, each of four letters. There were seven original characters, which, after undergoing four different variations each, constituted these seven classes. They wrote also from top to bottom: and that this was the case formerly in *Sumatra* is my opinion.* For the manners of the natives of the *Philippine* islands, correspond in so many striking particulars, with those of the *Sumatrans*† that no doubt can be entertained, says Mr. MARSDEN, if not of a sameness of origin, at least of an intercourse and connexion, in former times, which no longer exists. They used to write from top to bottom, till the *Spaniards* taught them to write from left to right. The *Tagala* alphabet in these islands, has certainly great affinity with those of *Sumatra*.

THE two alphabets of the *Sumatrans* consist only, one of twenty-three, and the other of nineteen letters; but it is probable that there were two sorts of them formerly, as in *India*, and which were originally the same. One was used by the more civilized and learned

* DR. LEYDEN, who has been lately engaged in inquiries concerning the tribes inhabiting the islands of the eastern *Archipelago*, partly confirms this conjecture by the information, that the mode of writing, practised by one of the tribes in *Sumatra* (the *Battas*), is perpendicular: but instead of commencing at the top of the line, the writing begins at the bottom. MARSDEN'S *Batta* alphabet is stated to be correct, provided the plate be turned in a perpendicular instead of a horizontal direction. H. T. C.

† *History of Sumatra*, p. 255.

classes, and at court; the other was current among the lower classes, whose poor and barren dialects had fewer sounds to express. Be this as it may, the elements of their alphabets have an obvious affinity with those of the *Sanscrit*. The *Sanscrit* alphabet, after striking off the double letters, and such as are used to express sounds peculiar to that language, has a surprising affinity with the old alphabets used in *Europe*; and they seem to have been originally the same. This subject I intend to resume hereafter. The Emperors of *Sumatra*, when endeavouring to introduce civilization into their country, opened an intercourse with *India*, but more particularly with the kingdom of *Megadha*, and *Pali-botra*; for, as Mr. MARSDEN judiciously observes,* the *Malay* language has received no improvement from the dialects of the *Peninsula* in *India*. All the *Hindi* and *Sanscrit* words in that language are such as were in use at the court of the Emperors of *India*, residing in *Bakar*, and among the better sort of the inhabitants of that country.

THE Kings of *Sumatra* call themselves *Mahā-rājas* to this day; their prime ministers are called *Mantri*† which are both *Sanscrit* terms. In their language *Dewa* and *Dewata* are derived from *Déva* and *Dévatā* in *Sanscrit*; the first of which signifies a god, and the other a deity. Among the names of places in *Sumatra*, very few are *Sanscrit*, but the following are undoubtedly such; viz. *Indragiri*, *Indrapura*, *Ipura* or *Aipura*, *Sinha-pura*, *Singā-pour*, or *Sincāpour*.

JAMBULUS says that this tract of islands, or *Lancā*, consisted of seven principal ones: and to this day in the *Peninsula*, *Lancā* is often called

* As. Res. v. iv p. 233.

† Hist. of *Sumatra*, p. 285, and from *Mantri* the Portuguese made *Mandarin*.

Yail-Lancá or the seven *Lancás*; because it consisted of seven islands. This information I owe to Mr. DUNCAN, Governor of *Bombay*. From *Yail-Lancá* former travellers made *Ylanca*.

SUMATRA is perhaps the island of *Sabalá* mentioned in one of the *Puránas*; and it is the same which is called *Saivatá* or *Saibalá* in the *Váyu purán'a*, section of the earth, and represented as a mountainous region in the skirts of *Bhadrás'va*, or that part of the old continent between the N. E. and S. E. quarters. From *Saibalá*, APULEIUS and ARISTOTLE* probably made *Phebol* or *Psebol*, as some learned men are inclined to read it. The former says, that in the eastern seas, there are two large islands, *Taprobane* and *Phebol*: ARISTOTLE places the latter opposite to *Arabia*, and we have seen before that the *Pauránics*, *Arabian* and *Persian* authors insist, that *Sumatra* is close to the continent of *Africa*. The island of *Sabala* is probably the *Samil* or *Shamel* of EL-EDRISSI and other eastern geographers, who call it also *Sabil*. The country of *Cephala* is noticed by former *European* travellers; and in the year 1543 adventurers from that country plundered and ravaged part of the island of *Sumatra*.†

III. LET us now pass to the third island or *Sinhala*, now *Ceylon*. Its *Sanscrit* name is a derivative form from *Sinha* a lion, and it was given to it on account of its being inhabited by *Sinhalas*, or the off-

* ARISTOT. de Múndó.

† Hist. of *Sumatra*, p. 6.

spring of a lion.* It is however more generally called *Lancá* in the *Purāṇas*, and is represented there as the country of *Ravana*, or *Rāban*, the brother of *Cuvēra*; and both were born at the extremities of the world, in the N. W. As he was contemporary with RA'MACHANDRA, if there ever was such a being, he must have lived about 1800 years before CHRIST. The wars of RA'VANA in *Lancá*, and the adjacent countries, are famous all over *India*, and make an era in the history of *Ceylon*. Traditionary legends in that island say, that in consequence of this bloody war, the island was depopulated, and remained in that state for 1815 years, being only inhabited by *Daityas*, or rather savage tribes. *Ceylon* was afterwards called *Salāva*, or *Sālavam* according to F. BARTHOLOMEO, from the *Saleyas*, a certain tribe in *India* called also in the *Purāṇas* *Sālavas*. The famous peak of *Adam* was called *Sāl-mala*, or the mountain of *Sāla*. It is mentioned in the commentary on the *Sūrya-Siddhānta*; in which it is said, that MAYA the offspring of the sun by the daughter of the divine *Twashtā* in the west, came from *Rāmaca-nagara* or *Rome* to the mountain of *Sāl-mala* in *Lancá*, to make *tapasya* in honour of the sun, in order to obtain astronomical knowledge from him. Another name for it is *Sāmānala* from *Saumya-Nala* another son of *Twashtā*, who built RA'MA's bridge. *Twashtā* is the chief engineer of the gods, and his grand-son MAYA of the *Daityas*.

THE appellation of *Salica*, or *Salice*, as it was called by ancient geographers of the second century, is also a regular derivative form in Sanscrit, from *Sāla* or *Sāli*: this denomination was unknown to PLINY. According to F. BARTHOLOMEO, and former travellers, *Ceylon* was cal-

* As. Res. v. vii. p. 48.

led *Nam*, and *Na-nad*, *Ilandr*; the country of *Ná*, which signifies the earth in general. *Tre-nad*, or *Tranad*, another name for it, signifies the three countries, meaning I suppose the three islands of *Lindá*.

The *Hindus* reckon the longitude from the meridian of *Lahcé*, passing through the peak of *Sálmala*, the place of worship called *Rá-mes'wara* (or dedicated to *Is'wara*, with the title of *Ráma*,) *Avanté* or *Ujjain*, *Méru*, and the mountain of *Vatéz* in *Cyru* or *Siberia*, which last is most probably an imaginary place in that country. The place of *Ráma* was called *Arima* by *Muslemán* writers; and they said that it was under the equator, and exactly half way between the straits of *Alexander* or *Malaca*, and those of *Hercules* or *Gades* in the west; and they gave the name of *Gadir* or *Gades* to these two straits, both leading into two vast *Mediterranean* seas; and through *Arima* the *Hindus*, and even some *Arabian* authors, it is said, made their first meridian to pass. *ALI-COSHGÍ* a *Persian* astronomer, who lived about 350 years ago, says that in his time some *Hindus* placed their first meridian at *Cancadora*, or *Jum-cote* in the east.* I believe that some of them did so formerly, and this of course occasioned afterwards some confusion. Their first meridian then passed through the eastern *Cerne*, and the last through the western one, the several islands of which tract were the original islands of the blessed. When this mode of reckoning was altered, the meridian was placed in the middle of the world, yet it still passed through the eastern *Cerne*; though through a different part of it. This induced them also to bring one extremity of the western *Cerne* under the same meridian, probably for the sake of symmetry, which was cer-

* *Abulfeda Chorasmia &c. descriptio int. Geograph. min. vol. iii. p. 9.*

tainly a sufficient reason with them. Thus the iron peaks of the two *Tri cûlâdri*s fell in the same meridian, and the northern one might be about *Nova-Zembla*.

THIS made me suppose, on my first acquaintance with the *Purânâs*, that the *White Island* was an *Utopian* land, and I resolved of course to give myself no further trouble about it. The ingenious Mr. BAILLY would not have failed, to have considered this projection of the northern *Tri-cûta*, as a confirmation of his own system. There is another instance of the fondness of the *Hindus* for a symmetrical arrangement, and noticed by STRABO, as we have seen in the first part. The mountains to the north of *India* are in an oblique direction, and the first range of the snowy mountains is in the same line with *Rômâcâ-pattan* or *Rome*, and *Yamâpuri* or *Jumcote*, as placed by the *Hindus*; one at the furthest extremities of the west, and the other in the same manner toward the east, as represented in the second number of the accompanying plate. But as this oblique direction of the mountains to the north of *India*, does not look so well in the mode of projection adopted by the *Hindus*, they have represented them in a parallel direction with the equator; and with them *Jumcote* and *Rome*. STRABO highly reprobates that alteration in the direction of the mountains to the north of *India*; and which in his time, had been adopted by geographers in the west.

THESE two *Gadirs*, called the eastern and western gates, by *Arab* and *Persian* authors, are in an oblique direction, and may be called the terrestrial gates: for in heaven there are also two gateways, one in the west in the tropic of *Cancer* and the other in the east in the other tropic. These were called the gates of the sun: the southern one was

denominated the water gate, and the fire gate was in the north. The souls of the departed ascend through one gate, and those who are to be born again descend through the other, according to western mythologists. The *Hindus* have also two roads, one in the north or left, and the other in the south. Those who follow the left path, ascend through the northern road; and those, who follow the right one, ascend through the southern path.

III.

On the LANGUAGES and LITERATURE of the INDO-CHINESE NATIONS.

By J. LEYDEN, M. D.

THE inhabitants of the regions which lie between *India* and *China*, and the greater part of the islanders of the eastern sea, though divided into numerous tribes, and equally dissimilar in their languages and manners, may yet with propriety be characterized by the term *Indo-Chinese*. Situated between *India* and *China*, each of which proudly styles itself the most ancient among the nations of the earth, they have contented themselves with more modest claims to antiquity, and professed to borrow from one or other of their neighbours the principal features of their religion, laws and manners. The different periods however at which these were adopted in different countries, the various degrees of civilization, and the pre-existing habits on which they were engrafted, have produced a diversity of national characteristics, by which they are not only distinguished from the *Indian* and *Chinese* nations, but also from one another, notwithstanding their common mixed origin.

THE intercourse of *Europeans* with the *Indo-Chinese* nations, though, for the first two centuries after the arrival of the *Portuguese* in the East, scarcely inferior to that which was carried on with *India* or *China*, was not of such a kind as to furnish us with a very accurate or extensive knowledge of their laws, manners or literature; and for more than a century it has been rather declining than increasing. Neither, since our

late rapid acquisitions in *Indian* languages and literature, have we obtained any important accessions to our information in this quarter; though both political and literary reasons seem to require them.

The materials of this imperfect sketch were chiefly collected in the course of a voyage, which the state of my health caused me to take to the eastern isles, in 1805; during which I resided some time at *Penang*, and visited *Aché*, with some other places on the coasts of *Sumatra* and the *Matayan* peninsula. Cultivating an intercourse with a variety of individuals of different eastern tribes, I availed myself of the facilities which the situation presented; to correct the vague ideas which I had previously entertained, concerning their languages, literature and the situation of their tribes. Though my information was chiefly collected from native sources, yet it sometimes happened, that these were not exactly such as I should have preferred, had better been attainable; and sometimes too, from the indifferent state of my health and other causes, I was not able to avail myself of these sources of information to the extent I could have wished. Feeling myself equally embarrassed by the extent of the subject, the difficulty of the research, and, perhaps I may add, in some instances, by the novelty of the investigation, I should have hesitated to lay before the Asiatic Society these imperfect results, had I had any immediate prospect of pursuing the discussion. I do not however despair of being able, at no very distant period, to offer some more minute and correct views of several of the subjects treated here in a cursory manner; and, at all events, I trust this attempt to introduce order and arrangement into a subject at once so extensive and intricate, and to disentangle it from a degree of confusion which seemed almost inex-

tricable, may not be altogether without its use; but may, even where I have failed, serve to point out the proper method of investigation.

THE *Indo-Chinese* nations, at a very early period, seem to have generally embraced the system of *Budd'hism*. From the want of original historical documents, we can only conjecture the period at which this event took place, in the different regions over which it has extended; but at present it is chiefly confined to the continent. The coasts of the *Malayan* peninsula, and of the greater part of the eastern isles, are chiefly occupied by the *Moslems*. The original inhabitants, therefore, being for the most part confined to the interior of these islands, are still very imperfectly known to *Europeans*; so that it is often impossible to determine, whether their religious institutions are most connected with the tenets of *BRAHMA* OR *BUDD'HISM*, and often to reduce them to any known system. From the names and epithets however of some of their deities, even as given in the vulgar and incurious manner of common navigators, it is often easy to discover their connection with the grand features of *Hindu* superstition; but our notices concerning them are generally too scanty, and our narratives too erroneous, to enable us to classify them with absolute certainty. Such is the difference of oriental and *European* manners, that the simplest narrator is apt to mingle conjecture with observation; while an absurd affectation of superior sagacity and a disdain of vulgar superstitions and prejudices, often prevent those who have had the opportunity of observation, from detailing the most useful pieces of information, or induce them to reject, as anile and useless fables, the mythological narratives which would enable us to determine the origin of a nation or a tribe.

scrib than of *Pali*; though the influence of this latter is not to be entirely excluded. But several of them have been a second time modified, by the introduction of *Arabic*, as the language of religion and learning, after the conversion of several of these tribes to the *Mahummedan* faith.

THE vernacular *Indo-Chinese* languages on the continent, seem all to be, in their original structure, either purely monosyllabic, like the spoken languages of *China*, or they incline so much to this class, that it may be strongly suspected, that the few original polysyllables which they contain, have either been immediately derived from the *Pali*, or formed of coalescing monosyllables. These languages are all prodigiously varied by accentuation, like the spoken languages of *China*; and every foreign modification which they have received seems to have been immediately derived from the *Pali*.

IN the paucity of existing monuments, relative to the *Indo-Chinese* nations, no better method presented itself, either for classing their tribes, or laying a foundation for historical researches, than by examining the mutual relation of the several languages which are current among them. This method, when applied on an extensive scale, is always the surest clue for developing the origin of a nation, and indicating the revolutions to which it may have been subjected, either by foreign conquest or colonization. After the relations of the language itself, the ancient monuments, and compositions, preserved in it, claim our regard; and I have therefore noted, under their respective heads, such as have come to my knowledge; premising that my opportunities of procuring this species of information have been very unfavourable, and of examining them, very limited.

The *Indo-Chinese* languages may be considered in the following order.

Polysyllabic languages.

- 1 Malayu,
- 2 Jáwa,
- 3 Búgia.
- 4 Bina,
- 5 Batta,
- 6 Gála, or Tagála,

Monosyllabic languages.

- 7 Rukhéng,
- 8 Bárma,
- 9 Môn,
- 10 Tháy,
- 11 Khôhmén,
- 12 Lâw,
- 13 Anám,

The learned language.

- 14 Pali.

I. MALAYU.—The *Malayu* language, so pronounced in the *Malaya* peninsula, but by *Europeans* generally denominated *Malay*, is used by the numerous and enterprising nation, of that name, who are termed *Khek* by the *Siamese*, and *Mású* by the *Barmas*. This language, which from its sweetness, has been termed the *Italian*, and from its widely extended use, the *Hindustani* of the East, though it coincides with the monosyllabic languages in its general construction and analogies, is properly polysyllabic in its form. Having spread itself over a great extent of country, not only in the *Malaya* peninsula, but far among the eastern isles; and having been propagated by a race more skilled in arms than in letters, it has branched out into almost as many dialects as states, by mixing in different proportions with the native languages of the aboriginal races. This is the circumstance which renders the investigation of the origin and relations of the *Malayu* language a matter of difficulty, as it becomes necessary to examine the history of the nation, as well as the structure and composition of the language itself. Though used

by a nation of comparatively late origin, at least with respect to the principal features which it at present presents, the history of this nation is still very obscure, rather, it may be presumed, from the want of investigation, than from the want of materials for its illustration. The history of the origin and progress of the *Malayu* tongue, of course partakes of this obscurity; but notwithstanding the great diversity which occurs in the spoken dialects, in the bazar jargon, or as the *Malays* term it, the *Basa Dagang*, of the several *Malay* states, the *Basa Jawi* or written language of composition, is nearly the same in all; and the popular, or vernacular languages, are reckoned pure, in proportion as they approximate to the written language.

ASSUMING therefore the *Basa Jawi* as the standard of comparison, the *Malayu* language, in its present state, consists of three principal component parts. The first of these, which is rather the most copious and current in the language of conversation, may, perhaps, in the present state of our knowledge, be regarded as original, though it is not only connected with the insular languages, but with some of the monosyllabic, as *Bárma* and *Thay*. The second, which is obviously derived from the *Sanscrit*, is rather inferior in the number of vocables to the first, though, as far as regards general use, greatly superior to the third part, which is derived from the *Arabic*. As a spoken language, the *Malayu* exists in the greatest purity in the tin countries, or the peninsula of *Malaya*, which is obviously the *Temala* of *PTOLEMY*. *Temala* is a regular derivative from the *Malay* vocable *tema*, which signifies *tin*, and from this, among other circumstances, we may be permitted to infer the high antiquity of the basis of the *Malay* language from its giving name

to the *Cassiterides* of the east. The *Malayu* language is spoken in its greatest purity in the states of *Kiddoh* or *Tannu Say*, *Pera'k*, *Salangór*, *Kullung*, *Johór*, *Tringgano*, *Puhang* and as far as *Patani*, where it meets the *Siamese*. Among the western *Malays* in general, it is spoken with more purity than among the more easterly isles, but on the coast of *Sumatra*, or *Pulow Purichu*, it is intermixed with the *Batta* and other original languages. The *Menangkabow* race, who seem at an early period to have ruled the whole island of *Sumatra*, whose chief assumes the name of MAHA' RA'JA' of RA'JA's, and derives his origin from *Lankápura*, speak a dialect of *Malayu*, which differs considerably from that of the peninsula; but which seems, as far as I can judge, to coincide in many respects with the *Jawa* or *Javanese* language. The race have probably derived their origin from *Lankápura* in *Jawa*. The *Malayu* dialect of *Riyow* and *Linga* seem to be mixed with *Javanese*, as are those of the *Malay* states on the island of *Jawa*. The dialect of *Puntiana* and *Sambas* is purer than that of *Borneo* or of *Banjar*, but that of *Passir*, on the east coast of *Borneo*, is greatly mixed with the original language of *Celebes*, or the *Bugís*. The *Malays* of *Celebes* speak a dialect greatly mixed with *Bugís*, while those of the *Moluccas* and the more eastern isles have adopted such a multitude of foreign words, that their dialect sometimes seems to be quite a different language. The simplicity of structure which the *Malayu* language possesses, in common with those of the monosyllabic class, greatly facilitates this adoption of foreign terms; and the practice is so prevalent in the more easterly isles, that the term *Basa Timor*, or the eastern language, is currently applied to every kind of jargon.

As the *Malayu* language, from its wide extent and the adventurous spirit of the nation, seems to have exerted, in the eastern isles, a modifying influence, similar to that of the *Sanscrit* in *Hindustan* and *Dekhan*, and of the *Pali* among the *Indo-Chinese* nations; it becomes necessary to examine it somewhat more particularly; especially as some of the opinions I have been led to adopt concerning it are somewhat different from those which have been entertained by names of great authority.

THE *Malay* language, according to MARSDEN, whose opinion has been rather admitted than confirmed by Sir W. JONES, is "a branch, or dialect, of the widely extended language, prevailing throughout the islands of the *Archipelago*, to which it gives name, (which may be understood to comprehend the *Sunda*, *Philippine* and *Molucca* islands) and those of the *South Sea*; comprehending, between *Madagascar* on the one hand, and *Easter Island* on the other, both inclusive, the space of full 200 degrees of longitude. This consideration alone," adds that able author, "is sufficient to give it claim to the highest degree of antiquity, and to originality, as far as that term can be applied. The various dialects of this speech, though they have a wonderful accordance in many essential properties, have experienced those changes which separation, time and accident produce; and, in respect to the purposes of intercourse, may be classed into several languages, differing considerably from each other." * In another paper, published in the *Archæologia*, vol. VI. this able author has successfully exhibited a variety of instances of coincidence, both in sound and signification, between the *Malay* and several of the eastern

* Asiatic Research. Vol. IV.

dialects. By attempting to prove too much, however, I apprehend, that he has failed essentially. He has pointed out a few coincidences, but has left the mass of the language totally unaccounted for; and as the few coinciding words may all have been derived from a common source, it is perhaps a more natural inference to conclude that they have all been modified by some general language, than with Sir W. JONES, to determine that the parent of them all has been the *Sanscrit*. The same author, in his history of *Sumatra*, seems inclined to think that the *Malay* language was indigenous in the *Malay* peninsula, from which it extended itself among the eastern isles, till it became the *lingua franca* of that part of the globe. The author of the description of *Siam*, in the modern part of the Universal History, not only assigns a very different origin to the language, but accounts in a very different manner for its uncommon extent. Describing *Malacca*, he observes, "The *Malayan* tongue is formed out of the languages of the different nations which resort hither, by selecting the choicest words in each. Hence it is reckoned the most agreeable and elegant in all the *Indies*, which quality, joined to its use in trade, causes it to be learned by the remotest eastern people." A language, formed according to this ingenious idea of selection, might probably be remarkably agreeable and elegant, but it would be still more remarkable, as a new phenomenon in the history of nations. It would certainly be a very uncommon occurrence, in the history of mankind, to discover a nation so choice in matters of abstract sound, and so refined in their organs of hearing, as to take the trouble to learn a copious and unknown language, for the mere abstract pleasure of gratifying this delicate sense, or appetite for sweet vocalic sounds. Nevertheless, though the author is a little unfortunate in his doctrine

of causes, the fact to which he alludes is worthy of attention; for it is not necessary to possess a very minute knowledge of the *Malayu* language, to be able to call its originality in question. It may be safely affirmed, that neither the *Malay lingua franca* of commerce, nor any of the maritime dialects of *Malayu* existed previous to the æra of MAHUMMED, in a state similar to that in which they appear at present; and these dialects seem to comprehend all that are usually included under the denomination of the *Malayu* language.

THE *Malayu* language, in this limited sense, is obviously indebted to two foreign sources, for the majority of the vocables which compose it, and these are the *Sanscrit* and the *Arabic*.

THE connection between the *Sanscrit* and *Malayu* was first remarked by Sir W. JONES, and Mr. MARSDEN has confirmed the fact, by about fifteen examples, selected, as he says, with little pains, from a *Malay* dictionary, which, had he been acquainted with the *Sanscrit* language, he might, with very little labour, have extended to fifteen hundred, or perhaps five thousand. Many of the *Sanscrit* words in the *Malayu*, as he observes, are such as the progress of civilization must soon have rendered necessary, being frequently expressive of mental feelings, or such modes of thinking as naturally result from the social habits of mankind, or from the evils which tend to interrupt them. Many of the names of the common objects of sensation are also of *Sanscrit* origin; nevertheless the simplest part of the *Malayu* language, and that which is most indispensable to its existence as a distinct tongue, is certainly not derived from the *Sanscrit*.

WITH respect to the connection between *Arabic* and *Malayu*, MARSDEN observes, that the latter language abounds with *Arabic* words, which writers affect to introduce, because this display of literary skill is, at the same time, a proof of their religious knowledge. He adds, that these words are generally legal or metaphysical terms, borrowed from the Koran or its commentaries, that they are never expressive of simple ideas, are rarely used in conversation, and, with few exceptions, seem never to have been thoroughly incorporated into the language. This account of the introduction of *Arabic* into *Malayu* is unexceptionably just, excepting with respect to the use of *Arabic* terms in conversation, which is affected by all *Malays* who have any pretensions to literature. The number of *Arabic* vocables, too, that have been introduced into *Malay* compositions, though certainly inferior to those of *Sanscrit* origin, are considerably more numerous than might be supposed from this statement; or rather, as in *Persic* and *Turki*, it is difficult to assign any bounds to their introduction, but the pleasure of the writer. It may also be observed here, that in the *Malayu* language, *Arabic* plurals are very commonly used as singulars, as often happens in *Turki*, and other dialects which admit of a mixture of *Arabic*. MARSDEN has mentioned another peculiarity, in which *Arabic* vocables, adopted by the *Malayu*, differ from adopted *Sanscrit* terms. While the *Arabic* words retain their peculiar and harsh pronunciation, those of *Sanscrit* origin are softened down, and assimilated with the rest of the language. This observation must likewise be taken with many limitations; for numerous words, of *Arabic* origin, are so completely assimilated to the *Malayu* pronunciation, that they are no longer capable of being recognized, even by a

native *Arab*, unless by attention to their radicals; the *ain* and *ghain*, in particular, excepting in religious terms, are very generally converted into *Alif* and *Gaf*, both in writing and pronunciation. It is certain, however, that *Arabic* words are naturally untractable, and are apt to have a foreign appearance, when assumed into any other language, in spite of all modifications. The *Arabic* is a language so complete in itself, and so peculiar in its structure, that it is as little capable of coalescing neatly with any other language, as a curved line with a straight one.

MARSDEN has likewise hazarded an opinion, that the polish, which the *Malayu* has derived from *Sanscrit* or *Hinduvî*, has been obtained immediately from the natives of *Guzerat*, previous to the debasement of the genuine *Hinduvî* of the northern provinces, by the mixture of *Arabic* nouns, and the abuse of verbal auxiliaries. The resort of the people of *Guzerat* to *Malacca*, he adds, "is particularly noticed by DE BARROS and other authentic writers; and it is well known that the *Hindu* language has been preserved, with more purity, in that, than in any other maritime province of *India*." To this, it is sufficient to answer, that the *Sanscrit* vocables, adopted in *Malayu* and *Guzerâti*, are generally preserved purer in the former than in the latter; that the *Guzerâti* has no pretensions to be considered as a pure dialect of *Hinduvî*, but, on the contrary, is one of the very first that was corrupted by a mixture of *Arabic*, and that long prior to the period mentioned by DE BARROS. The *Bengâli* language itself, corrupted in pronunciation, as it certainly is, might have been more safely adopted, as the medium for the introduction of *Sanscrit* vocables into *Malayu*. Many *Sanscrit* words that are in current use in *Bengâli*, likewise occur in *Malayu*, with almost

the very same pronunciation. Of this it is easy to produce a multitude of instances. The following are such as present themselves spontaneously :

<i>Beng.</i>		<i>Malay.</i>	
Tot'hapi,	- - - -	Tatapi	but, however.
Punāh,	- - - -	Pūn	farther, again.
Tutkalā,	- - - -	Tutkala	then.
Bongsh,	- - - -	Bangsu	a race or family.
Kichhu or Kichhi,	- -	Kichi	a little.
Inggit, a signal,	- - -	Ingat	notice, memory.
Barung, a gift, a thing, a quality.		Barang-barang,	any thing.

BUT it is needless to adduce further instances; as the *Malay* history and the language itself, exhibit traces, sufficiently clear, to direct us to the region, with which the *Malays* had the most frequent intercourse, at an early period, and from which their language seems to have received the most considerable modifications, and that is the ancient kingdom of *Kalinga*. Here I am again under the necessity of dissenting from MARSDEN'S opinion. He says, "It is evident, that from the *Telinga*, or the *Tamool*, the *Malayan* has not received any portion of its improvement." I apprehend that the express reverse of this opinion is evident; for the *Malays*, at this very period, know the *Coromandel* coast by no other name than *Tanna Keling*, the land of *Keling* or *Kalinga*: a multitude of compositions, current among them, profess to be translations from the *Basa-Keling*, or *Kalinga* language; and the *Malayu* language contains a great number of words that are *Tamul*, *Malayālam* and *Telinga*; though neither *Sanscrit*, *Hinduvi*, nor *Guzerati*; and a variety that are only to be found in *Telinga*, the vernacular language of the *Kalinga Desa*.

FOR the same reasons that I infer an ancient intercourse to have subsisted between the *Malays* and *Kalingas*, I am induced to think that a

very intimate connection subsisted, at a very early period, between the *Malay* and *Javanese*. Not only the proximity of the island of *Java*, and the constant intercourse between the *Malay* and *Javanese*, point to this connection, but the whole of *Malay* literature, the state of the language, and the whole series of *Malay* history, confirm it. It is from the *Javanese* that the *Malays* profess to have received all their earlier mythological fables; and a great variety of their books profess to be translations from that language: even in compositions professedly translated from the *Keling* language, the *Javanese* name of the story is often mentioned: and almost every *Sanskrit* term, that occurs in *Malaya*, is likewise to be found in the *Basa Dalam Jawa*, the high language of *Java*, or rather the language of the interior; though a multitude of *Sanskrit* words, current in the *Javanese* language, are not to be found in the *Malayu*. Besides, many of the *Malay* states, and those of the greatest antiquity, are known to have been founded by *Javanese* adventurers, anterior to the arrival of the *Arabs*; and if the historical traditions of the *Malays* were better known, there are many reasons for supposing, that more of them would be found to claim the same origin.

THE greater part of the words of *Sanskrit* origin, found in *Malayu*, do not appear, to have been introduced through the medium of the *Bali*. In many instances, the *Malayu* form approaches nearer the pure *Sanskrit* than even the *Bali* itself; and many mythological stories exist in *Malayu*, the mythological characters are introduced in them, that, as far as I have been able to learn, do not occur in *Bali* compositions, at all, nor in any of the *Indo-Chinese* languages of the continent.

BUT after assigning the *Arabic* and *Sanscrit* vocables to their proper sources, a large proportion of words in the language will still remain unaccounted for; and these, words too, expressive of the most simple class of our ideas, and the most remarkable objects in nature. This part of the language, which, in comparison of the rest, may be termed native or original, MARSDEN attributes to what he reckons the original insular language of the *South Seas*; and this original language again, Sir W. JONES pronounces a derivative from the *Sanscrit*. That it is not *Sanscrit*, a very slender knowledge of the two languages is sufficient to evince; and if this original part should itself turn out to be derived, as I apprehend, from different sources, the idea of an original insular language will fall to the ground. Now there are a variety of reasons for supposing, that this part of the *Malayu* language, which might be imagined the most simple and original, is, in reality, more corrupted and mixed, than those parts which are confessedly derived from a foreign source. Several of the *Malayu* terms, which express the most simple and remarkable objects in nature, appear to be only gross auricular corruptions of true regular terms in the more ancient eastern languages, as *Jawa*, *Bugis*, *T'hay*, and *Burma*; and many of the simplest objects are not distinguished in *Malayu* by simple words, but by compound metaphorical and significant terms. The omission of the first syllable, in words derived from a foreign language, whether ancient or modern, is a frequent practice in the *Malayu* language: thus the *Sanscrit* *Avatara* becomes *Bitara*, and thus *rumbūlun*, the moon, in *Javanese*, becomes *Būlun* in *Malayu*; *Mōputi*, which signifies *white*, in *Bugis*, becomes *puti* in *Malayu*. Again, the metaphorical term *mata-hari*, which literally signifies the eye-

of day, is the only native term for the sun; though *Chinkerwalk*, a corruption of the *Bali* term *Chakrawala*, has been adopted in the higher dialect, or poetical style, termed the *Basa Dalam*. The *Malay* term *tuhin* which signifies *the aged*, is used as synonymous with *Allah'aala*, which they have adopted from the *Arabic*. A number of *T'hay* vocables occur in *Malayu*; but, for the most part, they are neither expressive of our simplest ideas, nor of the most remarkable objects in nature, excepting perhaps *ku* the contracted term of *Aku*, I, in *Malayu*, which is the same in *T'hay* or *Siamese*. A variety, however, of important words seem to have been adopted from the *Barma* language, especially in the verbal auxiliaries; and, in most of these instances, it may be observed, that the *Malayu* pronunciation coincides better with that of *Tavoy*, or *Tinnau*, than with that of the *Barmas* proper. Thus the substantive verbal auxiliary of the present, *adda*, seems to be only a modification of the more simple *da* or *dé* of the *Barma* language. The past *suda* of the *Barma syi dé*, the auxiliary of the future *jadi* of the *Barma ra-dé*, pronounced *ya-dé* or *ja-dé*, *maw*, will or may, is a modification of the *Barma Mi*, or *minh'*, and the permissive auxiliary *léh* of the *Barma lé*. Of the connection of the *Malayu* with any of the spoken dialects of *China*, it is more difficult to speak with accuracy, in the present state of our knowledge. BARROW, and some other authors of reputation, are inclined to attribute the origin of many *Malay* tribes to the nations of *China*; and that author observes, than even words, in the languages of *Sumatra*, are similar in sound to *Chinese* vocables; and that the corresponding words generally express the same idea in both languages. Of the value of this opinion it is not easy to speak in correct terms, for the proper *Chinese* languages,

are at least ten in number, and the dialects of *Sumatra*, vary almost as much, on a small scale, as the dialects of the *Chinese*; and to jumble together a number of corresponding words, in all those dialects, may therefore be no very difficult task. Some coincidences there certainly are, between the *Malayu* and the *Chinese-Mandarin* language; thus in the first personal Pronoun, *saya* and *gua*, which both signify *I* in *Malayu*, very nearly coincide with the *Chinese* *seah* and *ngo*, which have the same signification; but, on the whole, these coincidences seem neither very numerous nor important.

THE *Malayu* language is extremely well fitted for being a *Lingua Franca*, or general medium of communication, among the eastern isles, by the smoothness and sweetness of its tone, and the simplicity of its structure and construction. Its simple pronouns indicate rank and situation, and are almost as numerous as in *Chinese*; but the different dialects of the *Malayu* vary considerably, both in the use of the pronouns and of the verbal auxiliaries. It may also be observed, that the more mixed and impure any dialect of *Malayu* is, it is more verbose, more indefinite, in its expressions, and more loaded with useless auxiliaries and epithets, which encumber the language, without adding either elegance, force or dignity. The beauty and elegance of the *Malayu* is its simplicity; and the purity of its minor dialects may often be ascertained by this criterion alone.

THE literature of the *Malays*, though the language is well adapted for poetry, is not distinguished by many features of originality. A degree of monotony and repetition occurs in all the compositions of the mono-

syllabic languages, which has a great tendency to damp the ardour of composition, and extinguish poetical fire. The construction of the *Malay* is analogous to that of the monosyllabic languages, and there is also considerable similarity in the character of its compositions. The most favorite species of composition, among the *Malays*, is the *Pantún*, a word which is generally translated *song*, but which perhaps might with more propriety be rendered *simile* or *proverb*, as it consists of a simile, proverb or apophthegm versified, and its application. A *Pantún* is a rhyming quatrain, and is always restricted to four lines; hence it affects a kind of oracular brevity, which is very difficult to be comprehended by *Europeans*, who can seldom perceive any connection between the similitude and the application. The *Malays* allege, that the application of the image, maxim or similitude, is always accurate; but it may be suspected that if one half of the verse be for the sense, it often happens that the other is only for the rhyme; as in the ancient *Welsh* triads or triplets, in which there is professedly no connection between the natural image and the moral maxim. These *Pantúns* the *Malays* often recite, in alternate contest, for several hours; the preceding *Pantún* always furnishing the catch-word to that which follows, until one of the parties be silenced or vanquished, or as the *Malays* express it, *be dead*, *suda mati*. Many of these *Pantúns* bear no inconsiderable resemblances to the *Dohras* and *Kubítás* in the ancient *Hindavi* and *Pruja* dialects of *Hindustan*.

The *Sútor* is another species of composition, which is analogous to the *Persic Munevi*. Moral poems, resembling the *Pandnanchs* of the *Persians*, didactic works, or descriptive compositions and legendary or heroic narratives, are composed in this measure. The

Cheritra or *Hikaia*, also denominated *Chitra* and *Kuggawin*, from the *Javanese*, is more generally written in prose, but frequently intermixed with verse, both in the measures of the *Sáyer* and *Pantún*. These *Cheritras* contain the mythological stories current among the *Malay* tribes, and also fragments of their history, embellished in a poetical manner. The three great sources of all the *Malay* legends are the *Javanese*, *Keling* and *Arabic* languages, but in the compositions of latter date, the characters and incidents are so mixed, that it is not always easy to determine to which of these sources they ought to be referred. There is also one class of stories which the learned *Malays* term *Susu-pún*, I imagine from an ancient dynasty of *Javanese* princes to whom they relate. Some of these legends also coincide in the general story with those of the *Siamese*, as the *Malay Selambari* with the *Siamese Khin-p'ben*; and the *Hikayat Shah Murdan* with the *Siamese Lin-tóng*. When characters familiar in *Sanskrit* mythology are introduced into the *Malay* legends, their adventures are generally transferred by the *Malays* to the interior of *Java*; and even *Arabian* characters are often represented as performing their adventures in the *Malay* countries. Many of these narratives exist both in prose and verse, and of several there seem to be two editions: one derived immediately from the *Javanese* language, and which commonly contains a considerable number of *Javanese* vocables; the other from the *Keling*, which often contains a certain proportion of words more immediately derived from the *Sanskrit* and *Telingá*.

Of this latter class are probably the narratives termed *Hikaia* *Pendawa*, or *Pandau* stories, which seem popular versions, or rather

abridgements, of the different parts of the *Mahabh'arata*; some of which, in reality, give the outline of the story, as faithfully as the popular abridgements of it, which I have perused in *Mahráta*, *Tamul* or *Telinga*. I am only acquainted with the following *Malay Hikarats* of this class: *Pindawa Limn*, the story of the five *Pandús*; *Pindawa Jaya*, the victory of the *Pandús*; *Pindawa Berjudti*, the gaming of the *Pandús*; *Pindawa Pinjam-bali*, the *Pandús* borrowing a *Palace*; *Pindawa berjewal kapur*, the *Pandús* selling lime. The *Hikayat Maha Raja Ruma* of *Purichu Nikassan*, or account of the contest between *BRAHMA* and *VISHNU*, professes to be translated from the *Keling* of the dramatic *MUNGAKARTA NIGA'RA*. The *Sih Sepundi*, or history of a *Keling RAJAH*, is probably derived from the same source. The *Hikayat Sri Rama* is reckoned a *Susupun* story, as are the *Kusoma Indra* or history of *INDRA*, the *Bahinta Sena*, the *Sih Kibut*, or history of the war with the Apes, the *Rajah ular Ninggawong*, the *Hikayat Bida Sari*, the *Hikayat Raja Pukermadi* or *VICRAMADITYA CHERITRA*, the *Hikayat Derma RAJAH*, and the *Hikayat Kalilo Damna* or *Malay* version of the *Kalilo Dumna*.

THE following are *Javanese* relations, the *Hikayat Chikkil Wunnungputti RAJAH* of *Kirripún* in the interior of *Java*, the *Hikayat Jarana Tamasa*, or the love adventures of a chieftain of *Minjapahit* in *Java*, composed by *ANDIKA*, the *Kilana Perbujaya Cheritra*, or story of a Prince of *Kirripún*, the *Misa Perbujaya Cheritra*, the *Misa Kiamong Cheritra*, or history of a Princess of *Daha* in *Java*, carried off by *TIMU'NGU'NG BAPANG CHAKAR BIMA*, and rescued by

BITARA KALA; the *Jaran Kilinang Cheritra*; the *Ratu Bader Kisma Cheritra*; the *Panja Witin*, or history of INU KURTAPUTTI; the *Gambar Wirā-Putra*; the *Gambar Sri Ratu Anum-Ani Malayu*, or history of GAMBAR SRI, Princess of *Daha* and RAJAH ANU'M of *Malaya*; the *Naga Bisaru*, or history of a Princess of *Daha*, who was transformed into a snake and confined in a lake, the *Putti Kola Bisnu* or history of VISHNU, the *Kinta-Buhin*, or history of a chief of *Banjarkulin* in *Java*, the *Kiluna Jayang Sittru*, or history of RADIN JARAN TINANGLU, the *Angling Dermavi Raja-Cheritra*, and the *Hikayat Parang Puting*, or history of the hatchet without the handle. To the same source are probably to be referred the following, if they are not purely of *Malay* composition; the *Hikayat Pelanduk Jinaka*, or history of the sagacious hogdeer. The *Hikayat Bérung Pinggey*, or history of a wonderful bird. The *Deva Mandú Cheritra*, the *Sayer Sri Batn*, the *Hikayat Bian* and the *Hikayat Rajah Boodá'k*.

THE following are modifications of *Arabic* narratives, accommodated, however, to the peculiarities of the *Malayu* manners and customs. The *Hikayat Amir Humda*. The *Hikayat Rajah Kheiber*, the chief of the *Jewish* tribe of *Kheiber* in *Arabia*. The *Hikayat Rajah Hinduk*, the *Hikayat Mahummed Hanifah*, the *Hikayat Khajeh Maimún*, the *Hikayat Eblis*, the *Hikayat Rajah Sbah Murdan*, the *Hikayat Sultan Ibrahim-ibn-Adhem*, the *Hikayat Sekunder Dulkharneini*. The *Koran* is also translated into *Malayu* in the same paraphrastic manner as into *Persic*.

THERE are many *Malayu* compositions of a historical nature, though they are not so common as the classes that have been enumerated: such as the *Hikayat Rajah-bangsú*, which I have not seen; but which has been described to me as a genealogical history of the *Malay* RAJAHs. The *Hikayat Malaka*, which relates the founding of that city by a *Javanese* adventurer, the arrival of the *Portuguese* and the combats of the *Malays*, with ALBUQUERQUE and the other *Portuguese* commanders. The *Hikayat Putrajaya-Putti*, or history of an ancient Rajah of *Malacca*, the *Hikayat Achí*, or history of *Achí* or *Achin* in *Sumatra* and the *Hikayat Hang Tuha*, or the adventures of a *Malay* chief during the reign of the last Rajah of *Malacca*, and the account of a *Malay* embassy sent to *Mekka* and *Constantinople*, to request assistance against the *Portuguese*. Such historical narratives are extremely numerous; indeed there is reason to believe that there is one of every state or tribe; and though occasionally embellished by fiction, it is only from them that we can obtain an outline of the *Malay* history, and of the progress of the nation. The juridical customs or traditions of the *Malays* have likewise been collected into codes of different antiquity and authority. Among those of the greatest authority are the *Undang Undang*, and the *Addat Malayu*. The most ancient of these regulations however appear to have been adopted from the *Javanese* and *Bugis*. Particular states have at different periods composed peculiar regulations; as the *Adát Kiddeh*, which were compiled by Rajah SHAH ALUM, in A.D. 1151.

No dramatic compositions, in the *Malayu* language, have fallen as yet, into my hands, though many of them are said to exist. Scenic ex-

hibitions termed "*Wayang-wayang*," were till lately, very common in the peninsula of *Malayu*, but are now represented as less frequently exhibited. The subjects of the *Malayu* dramas are the same as those of their histories and romances, from which, like the dramatic compositions of the *Siamese* and *Chinese*, they only differ in assuming the form of dialogue and soliloquy, the progress of the incidents being generally the same.

THE following specimens of the *Malayu Pantun* and *Sayer* will exhibit the measure of the verse and the style of the composition. The first *Pantun* is a challenge to engage in a poetical contest. The rest exhibit the peculiar images introduced, and the manner of presenting them in the *Pantun*.

Tuan bulu, saya tumiang
Marilah kita berkaler taji
Tuan sapulu, saya tumbilan
Marilah kita berfandir nyani

You are a bamboo and I am but a slender twig ;
Yet come on, let us sharpen our weapons :
You are as ten, and I am only as nine ,
Yet come, let us contend in ironical verse.

Boah dalima ber pangfu pangfu
Samajuga berjaya merah
Jan'an tuan berpi'is bangfu
Samajuga daranya merah.

The pomegranate has many partitions,
But the seed is equally red in them all :
Do not give an undue preference to a race of men,
For the blood is equally red in them all.

Boah mamplum deri *Patani*
 Mafa sabiji de kulum rûsa
 Tuan Islam faya Nafrani
 Sama sama menangung dûsa.

Of all the Mangoes of *Patani*
 A ripe one is but a mouthful to a stag ;
 You are a Moslem and I a Christian
 But we must equally bear our own faults.

Batang padi jangan de rûrût
 Kalu de rûrût rûsa batangnya
 Hati muda jangan de tûrût
 Kalu de tûrût rûsa badinya.

Shake not the rice stalk,
 If you shake it the stalk is ruined ;
 Do not yield to youthful inclination,
 If you yield your person is ruined.

Siri kûning deri *Patani*
 Pinang muda deri *Malaka*
 Puti kûning ana'k Nafrani
 Itu membawa badin chilaka.

The yellow betel leaf of *Patani*,
 The fresh betel-nut of *Malacca*,
 A white yellow christian damsel,
 Bring a person to total ruin.

THE following passage of the *Selimbari* is given as a specimen of the *Sayer* verse, in which the *Malay* romances and moral poems are generally composed. In both measure and style they exhibit considerable resemblance to the ancient *English* and *French* romances ; there is little variety of pause or accent, and the line consists indifferently of eight or nine syllables, one long syllable being reckoned equivalent to two short.

Tutkala tuan lunkah de natang
 Mata mamandang le úrti bintang
 Chahianya lumpah gilang gumilang
 Teadaléh abang dapat mamandang
 Pipinya bagei paü de lalang
 Bersambút dangan lehernya jinjang
 Paras sepúrti gumbang dan wayang
 Barang de makan berbayang bayang
 Dahinya bagei sahari búlun
 Kinningnya bintúh bagei detillang
 Lalu de ambil jadikan túlun
 Maináki chinchin permata *Silun*
 Changgeynya panjang ber kílát kílát
 Sepúrti mutiara suda tericat
 Pinggangnya ramping terlalu chantík
 Leher laksana gumbang delarík
 Mungluarkan kata yang patáh chirdík
 Bibirnya bagei patey chicharík
 Teada mamáki laku ber saja
 Giginya hitam bukkus ber baja
 Chantik moñlik gilang de Raja
 Bersúnting kútum búnga Seraja,
 Parasnya elok búkun kapalang
 Intahkan jiwa garangan hilang
 Kapada mata suda terpanlang
 Teadaléh dapat kumbali pulang,

When my mistress looks forth from her window,
 Her eye sparkling like a star,
 Its brilliant rays glancing and glittering
 Her elder brother cannot support its lustre ;
 Like the red mangoe is the hue of her cheek,
 Becoming her tapering neck,
 Traversed with shadows whenever she swallows :
 Her features like those of a statue or scenic figure,
 Her forehead like the new moon in its first day,
 Her eye-brows curved, so fair I could devour her,
 Long has she been chosen to be my mistress.

Wearing a ring set with the gems of *Ceylon*,
 Her long nails shining like lightning,
 Transparent as a string of pearls,
 Her waist slender and extremely elegant,
 Her neck turned like a polished statue,
 Eloquent in the enunciation of her words,
 Her parting lips like the crimson red wood
 Not by dress, but by herself adorned ;
 Black are her teeth stuned with *baja* powder,
 Graceful, slender, appearing like a queen,
 Her locks adorned with the *Serija* flowers,
 Her features beautiful with no defect of symmetry.
 My soul is often fluttering ready to depart,
 Glancing covertly forth from my eyes,
 And quite unable to return to its station.

THE character generally used by the *Malays*, is a modification of the *Arabic* : and, in addition to the proper *Arabic* alphabet, the *Malayu* uses six letters, of which one is the *Persic ché*, a second the fluried *dz'*, of the *Hindustani*, two more correspond in power to the *Persic* and *Hindustani* *ja* and *ga*, but are written of a different form, and the remaining two, *nga* and *nya*, are peculiar in form, but correspond to the nasals of the first and second series of the *Devanagari* alphabet. The *Malays* of *Java*, however, often use the *Javanese* character, to express their own language, as those of *Cekbes* do the *Bugis*. In the *Moluccas*, the *Latin* character has obtained some degree of currency, even among the *Malays*, and is sometimes used by them to express the *Malayu* language.

THE *Malayu* language was one of the first cultivated in the east by *Europeans*. The first attempt to form a grammar or dictionary of it, as far as I know, was made by DAVID HARRIS, who published in *Malayu* and

Dutch, a vocabulary with some grammatical observations. At the request of Cardinal BARBERINI, the *Dutch* was rendered into *Latin*, and published with the *Propaganda* types at *Rome*, in 1631, under the title of "*Dictionarium Malaico-Latinum et Latino-Malaicum, operâ et studio DAVIDIS HAEX.*" This is a work of some merit, but seems to have been composed in the *Moluccas*; and inclines to the *Basa Timor*, or eastern dialect of the *Malayu*. The author has given a short list of *Tarnata* and *Portuguese* words, that have been adopted into *Malayu*, and some useful observations on the phraseology. Professor THUNBERG, probably by mistake, mentions this work as published in 1707. It seems to have served among the *Dutch*, as a basis for similar compilations. The "*Malaica Collectanea Vocabularia*," or collection of vocabularies, was printed at *Batavia* in 1707-8, in 2 vols. 4to. and the "*Dictionarium of te Woord ende Spraak bock in de Dutsche en de Maleysche Tale*," at the same place in 1708, in 4to. A "*Maleische Spraak-kunst*" or *Malay Grammar*, was published by GEORGE HENDRIC WERNDLY, at *Amsterdam*, in 1726, 8vo. A "*Nieuwe Woordenschaft in Neder-Duitsch, Maleisch en Portugeesch*," was also published at *Batavia* in 8vo. 1780. The *English* have also contributed their share to the cultivation of this language. BOWREY's *Grammar and Dictionary of the Malay language* were published at *London* in 1701, in 4to. after the author had passed 19 years in trading among the eastern isles. This is a work of great merit and labour, and though the *English* character only is used, yet the pronunciation and the signification of words are generally given with great accuracy. BOWREY, however, had the assistance of the two eminent orientalists, HYDE and MARSHALL, in its composition, both of whom

were excellently skilled in the language. In 1801 was published at *London*, "A Dictionary of the *Malay* tongue, to which is prefixed, a Grammar of that language, by JAMES HOWISON, M.D." The author founds his claims on a ten years acquaintance with the *Malays*, and their language. From the scarcity of BOWREY'S work, I have not been able to compare it with the publication of Dr. HOWISON, but I suspect the additions of the latter to be neither numerous nor important. One improvement he has attempted, and it is the following. "In giving the *Malay* words in the *Arabic* character," says he, "we have followed the excellent example of RICHARDSON and GILCHRIST in their *Persian* and *Hindoostanee* Dictionaries, and it is, in fact, the character used by the *Malays* themselves." But had Dr. HOWISON been acquainted with the *Malay* orthography, he would have perceived that this barbarous mode of converting the *English* character into the *Persic*, could be of no possible utility, either to an *European*, or an *Asiatic*. The *Malayu* has an established orthography, like the *Arabic*, *Persic*, and *Hindustani*; and this established orthography of *Malay MSS.* he has violated, repeatedly, in every page, not only by spelling the *Malay* words in a mode never used among the *Malays* themselves, but by omitting all their peculiar characters, and by using some *Persic* characters, as *pa* and *ga*, with which the *Malays* are unacquainted altogether. "A Short Vocabulary, *English* and *Malayo*, with grammar rules for the attainment of the *Malayo* language," was published at *Calcutta* in 1798. The rules differ little from those which appear in HOWISON'S Grammar, prefixed to his Dictionary, and the vocabulary generally coincides with it in the explanation of words, which are not very numerous.

Besides these works which have been printed, many Vocabularies and Dictionaries exist in MSS. in *Dutch*, *English* and *Portuguese*; and of these several are in my possession. RELAND, in his "*Dissertatio de linguis Insularum Orientalium*," mentions a large MS. Dictionary which he had consulted, composed by LEIDEKKER, a *Dutch* clergyman in *Batavia*, from which he has selected a specimen of the language. Several smaller Vocabularies of *Malayu* have been published, chiefly by voyagers and travellers, with various degrees of accuracy. Being generally constructed in a very hurried manner, by persons devoid of a radical knowledge of the language, and often, as may be presumed, under the necessity of expressing their questions by a mixture of signs, they generally abound in very ludicrous errors and risible mistakes. Of this kind, many instances might easily be selected from LABILLARDIERE'S *Malay Vocabulary*, nor is that published by Professor THUNBERG, in his travels, entirely free from them. Besides they are generally mixed with a variety of *lingua franca*, and other eastern words that are never received in correct *Malayu*.

THE sacred scriptures, at an early period, began to be translated into the *Malayu* language. The gospels of MATTHEW and MARK were first published in the *Malayu* language and *Arabic* character at *Enchusa*, in 1629, in 4to. according to the version of AIB. CORN. RUYL, and accompanied with the *Dutch* version. A second edition was published at *Amsterdam* in 1638. The gospels of LUKE and JOHN were published in *Malayu*, at *Amsterdam*, in 1646, according to the version of JOHN VAN HASEL. VAN HASEL and JUST. HURN, in 1648, published "*Psalmi quinquaginta priores, Malaicé et Belgicé*." The four gospels were repub-

lished, more correctly, with a version of the Acts of the Apostles, by JUST. HEURN, at *Amsterdam*, in 4to. 1651. Genesis was published in *Malay*, at *Amsterdam*, in 1662, according to the version of DAN. BROUWER, and the New Testament, by the same author, in 1668. A second edition of Genesis was published in 1687. The four Evangelists, and the Acts of the Apostles were published "in the *Malayan* tongue," at *Oxford*, in 1677, in 4to. and reprinted in 1704. Both editions are in the *Roman* character, and though HEURN's version was followed, yet the first edition had the advantage of being superintended by the learned HYDE, who has prefixed to it, a dissertation on the dialects of the *Malay*, and the method to be employed in studying the language. The Psalms, or "*Psalterium lingua Malaica et Belgica*," was published by VAN-HASEL and HEURN at *Amsterdam* in 1689. The "*Psalterium Malaice*" was published at *Amsterdam* in 1735, with musical notes. A complete version of the Bible was published at *Amsterdam*, in *Roman* characters, in 1733, and this version was again published in the *Arabic* character, with the addition of the *Malay* peculiar letters, at *Batavia*, in 5 vols. 8vo. 1758, under the direction of JACOB MOSSEL, Governor General of the *Dutch* possessions in the *East Indies*. The persons who superintended the edition were JOHAN. MAURITZ MOHR, and HERM. PETRUS VAN DE WERTH. A *Malay* catechism was also composed by GUSTAVUS WILLIAM BARON VAN IMHOFF, and printed at *Batavia* in 1746. This version of the Bible, is composed in the idiom of *Batavia* and *Malacca*, and I have heard it objected, that it is not very intelligible in *Sumatra*, and other *Malay* countries; but I regard it as quite impossible to form a *Malayu* version which would be approved in

point of style, in every *Malay* country at the same time, for so great is the diversity in point of style between the *Javanese Malayu* and the *Arabic-Malayu*, that even in the same country, those who are proficient in the one, are often scarcely able to understand the other.

II. JAWA.—The *Jawa*, or *Javanese* language, is admitted by the *Malays* to be that of a more ancient nation than themselves, and at no very distant period seems to have been current through the whole extent of *Java*. The island of *Java* was formerly subject to a single sovereign, bearing the title of RATU AGONG or SUSUHUNANG, of the *Susupûn* race, who generally held his court at *Kirripûn* or *Suryakarta*. The nation was brave, enterprising and populous, and before the introduction of the *Mahummedan* religion, about the year A. C. 1400, their power was supreme in the eastern seas, and they extended their conquests to *Sumatra*, *Borneo*, and even as far as the *Moluccas*. Their voyages often rivalled the celebrated Argonautic expedition in the spirit of adventure. They became known to *Europeans* only in the decline of their power; yet it was still so formidable as repeatedly to shake the authority of the *Portugucze* in *Malacca* itself; and one of the dependent princes of *Java* was able to fit out a fleet of thirty large vessels, the admiral of which was so strongly built, as to be reckoned, at that period, cannon-proof. The *Jawa* language is subdivided into a great number of dialects, all of which may be respectively classed under the heads of *Basa-dalam* and *Basa-luar*, the interior or high language, and the exterior or vulgar language of the coasts. Both of these differ considerably from the *Malayu*, which has adopted a multitude of terms from the *Basa-luar Jawa*, or coast language of

Jawa, compared even with which the *Malayu* language appears to be a corrupt derivative. The language of the interior, however, or the *Basa-dalam Jawa*, has a close and intimate connection with *Sanscrit*, and expresses the simplest objects and ideas by vocables which seem to differ no farther from the *Sanscrit* than in the corrupt pronunciation necessarily produced by the use of a less perfect alphabet. The only *Javanese* that I have met, who could speak the *Basa-dalam Jawa*, was not able to write the character; yet I perceived, in forming a short radical vocabulary, that he used many *Sanscrit* words for common objects, which are not in use in any dialect of *Malayu*.

THE alphabet of *Jawa*, is peculiar, and has no resemblance in the order of position to the *Deva nagari*. The number of characters are twenty, and these are varied by four vowels, e, i, u, o, but the real number of vocalic sounds is considerably greater. The *Javanese* character is written from right to left. The alphabet has been exhibited with considerable accuracy by LE BRUN, and also by RELAND; and it appears to have attracted the attention of the learned HYDE, as an "*Alphabetum Bantamense*," was found among his posthumous papers, which had been written for him by the ambassador of the king of *Bantam*.

VARIOUS ancient inscriptions and monuments are said to exist in the interior of *Java*, one of which was seen by THUNBERG, at *Paditulis*, near the blue mountains in the interior of the island, which consisted of eight lines and a half, engraved on a stone pillar, about two feet in breadth. The characters seemed, to him, to be written from right to left, and no person had been able to decypher them.

THE dialects of *Bugélen* and *Súndo*, in *Java*, are said to be very distinct from the *Javanese* proper; and, from the first of them, the language of *Súlu* is supposed to be derived. This point, however, I have not been able to investigate in a satisfactory manner.

THE literature of the *Javanese* is similar to that of the *Malays*, to which it seems to have given origin. Their *Kuggawins* or *Cheritras*, contain their mythology, and the adventures of their ancient heroes, and exhibit them in a style which has no inconsiderable resemblance to that of the *Hindu Puránas*. The *Javanese* laws are arranged in codes of considerable antiquity, and celebrated among all the eastern islands.

THE *Jawa* or *Javanese* language does not appear to have been regularly cultivated by *Europeans*, though some of the outlines of their mythological stories have been published in the Transactions of the Asiatic Society in *Batavia*, as well as some vocabularies of the *Jawa* language. In the Dutch work, entitled "*Begin en voortgang du Oostind. Compan.*" or the rise and progress of the *East India Company*, a comparative view is exhibited of the *Javanese* and *Malayu* languages. The *Mohammedans* have translated the *Koran* into *Javanese*.

THE *Bali* and *Madura* languages, spoken by the inhabitants of the isles of the same name, appear from the best information I could procure, to be dialects of *Javanese*. The greater part of the inhabitants profess the ancient religion of their ancestors, resemble the *Hindus* in their appearance, wear the *Hindu* marks on their foreheads, and the women burn themselves with their deceased husbands, according to the practice of the *Hindus*. Like the unconverted *Javanese*, they are peculiarly ad-

dedicated to the worship of INDRA, SURYA and VISHNÚ; but being neither in possession of their original religious books, nor of the extracts from them which have been adduced in the Transactions of the Batavian Society, I forbear to dilate on this topic at present.

III. *Bugís*.—The *Bugís* may be reckoned the original language of the island of *Celebes*, in the same manner as the *Javanese* is that of the island of *Java*. This ancient, brave, and martial nation, also, became known to *Europeans* only in their decline, but there are a variety of circumstances, relative to them, which incline me to regard them as probably more ancient, in the eastern seas, than even the *Javanese*. In courage, enterprise, fidelity, and even far dealing in commerce, they are placed at the head of all the *orang timor*, or eastern men, even by the testimony of the *Malays* and *Javanese* themselves, and to compare to them, either the *Chinese*, or the continental *Indo-Chinese* nations, were to compare an ass, caparisoned in stiff and gilded trappings, to a generous courser. The nation, to which the *Bugís* exhibit the greatest resemblance, is the *Japanese*, but I have not been able to discover that the same similarity exists between their respective languages, which appears in their natural characters.

THE island of *Celebes* was formerly divided into seven principalities, which were all united under an elective and limited sovereign. In this state, the island was the centre of eastern commerce, and extended its conquests, on the ~~east~~ ^{east} hand, as far as the island of *Bali*, and on the other, beyond the *Moluccas*. The *Bugís* language was assiduously cultivated, and their ancient mythology, traditions, laws and history, preserved in

books, the greater part of which are still extant, especially in the interior, among the tribes who still adhere to their ancient religion. On the sea coast, the *Mahummedan* religion prevails, and their books resemble more the later *Cheritras* of the *Malays*. In 1603, the *Mungkásar Rajah*, with the whole *Mungkásar* nation, by one of the most singular revolutions on record, renounced their ancient religion, and not only adopted *Islamism*, but compelled a number of the inferior states to imitate their example.

THE *Búgís* language, on the coasts, is much mixed with the eastern *Malayu*, and is found pure only in the ancient books, and in the interior of *Celebes*. It exhibits strong features of originality in its vocables, but resembles the *Malayu* and *Tāgála* in its construction. With *Malayu*, *Javanese* and *Tāgála* it exhibits many coincidences, but it contains, in its original state, almost no words of *Sanscrit* origin. With the ancient *Tarnata*, or *Molucca* language, it also exhibits some coincidences, but as I have had no favorable opportunity of studying the *Búgís*, and none at all of examining the *Tarnata*, with any degree of accuracy, I cannot pretend to determine the nature of this connection. Compared with the *Malayu* or *Javanese*, it has certainly more the air of an original than of a derivative tongue.

THE *Búgís* alphabet consists of twenty-two letters, which are varied by the six vocalic sounds a, u, i, e, o, úng. The form of the character is peculiar, though it appears to belong to the same class as the *Batta* and *Tāgála*. The power of the characters coincides nearly with that of the *Javanese* letters, though they differ a little both in number and in the

order of arrangement. The form of the *Bugis* character seems not only to differ considerably, in different states, but the alphabet also varies in the number and order of the letters. This proceeds from the adoption or rejection of the double consonants, which, though used in ancient and classical compositions, are seldom or never employed in letter-writing or common business; and hence, when a *Bugis* writes down his alphabet, it may vary, in the number of the characters, from seventeen to twenty-two. The only *Bugis* alphabet, printed or engraved, with which I am acquainted, is that which is given by FORREST, in a corner of one of the maps of his "*Voyage to the Mergui Archipelago*." The letters are not formed according to the common round *Bugis* hand, but sharp angled, like the *Rajang* and *Batta* character; but in other respects it is sufficiently correct. The *Bugis* character is also employed frequently in writing *Malayu* compositions.

THE language of the ancient *Bugis* compositions displays little diversity of dialect, but considerable variety exists in the language of conversation, in the different *Bugis* states. The dialect of *Mungkásar* or *Macassar*, the bravest and most renowned of the *Bugis* tribes, differs considerably from the *Bugis* proper; but the dialects of *Luhú*, *Enrékang*, *Mandar*, and especially *Iá-Rayji*, seem almost to be different languages.

THE *Bugis* language has never been regularly cultivated by Europeans, though the *Dutch* have formed abridgements of some of the historical relations which it abounds. I have formed a short radical vocabulary of both the *Bugis* and *Mungkásar*, but cannot consider it as pure and unmixed, being derived from inhabitants of the coast, though some of them were very intelligent, and tinged with their pe-

culiar learning. From the same source I obtained the following list of the most popular *Búgís* compositions:

- | | |
|------------------------------------|--------------------------------|
| 1. Nima Sagúni, | 28. Rotun-risosú, |
| 2. Batára Guru, | 29. Laga-ligo, |
| 3. Guru De Sillang, | 30. Tobala Onu, |
| 4. Tojorisúmpa, | 31. Radaöng Labeh, |
| 5. Lisini Leléh, | 32. Lumada Romang, |
| 6. Batára Lato, | 33. Palawago, |
| 7. Oputolaga, | 34. Liwaju-Lingi, |
| 8. Araulangi, | 35. Lunpa-puli, |
| 9. Panori Tawgéh, | 36. Datu-Mowunléh, |
| 10. Lajuri-hoi, | 37. Lalúmpang Méga, |
| 11. Jumuri China, | 38. Lisawúng Langi, |
| 12. Laurupoyi, | 39. Rotan di Papang, |
| 13. Rotun Nari-Tatta, Datu Nagima, | 40. Api Leléh, |
| 14. Lamaputoda-Túripo, | 41. Lamipang Aniro, |
| 15. Latum Mullurung, | 42. Lutan-nari-jui, |
| 16. Lauhdun-Réö, | 43. Baya ágúti, |
| 17. Lupa Bichara Lari Sindénaré, | 44. Lutupu Sallan, |
| 18. Gutupatalotopaliguna, | 45. Latúúgulla, |
| 19. Lappang Ngárisang, | 46. Lutan nari Pulang, |
| 20. Opu-Singmadu, | 47. Sitva-bonga, |
| 21. Opula Maru-Datu-na-Sopéng, | 48. Lisauú ng-puré, |
| 22. Látu-é-táva Paju Limpoy, | 49. Laga lego Tokolinghéng, |
| 23. Sawira Gading, | 50. Lutan naraúgi, |
| 24. Adewati, | 51. Datula-Kila, |
| 25. Rotun Diléwung, | 52. Lapanidora, |
| 26. Data Pamúsu, | 53. Rotan di umang toan laniú. |
| 27. Lanaga Ladúng, | |

THE greater part of the compositions here enumerated, celebrate the deeds of their national heroes. But besides these, the "*Addat*," or codes of *Búgís* law are of considerable antiquity, particularly those of *Gua*, *Waju*, *Boni* and *Mandar*; and of great repute, among the eastern tribes. Several of them are translated into *Malayu* and *Javanese*. The *Koran* is also translated into the *Búgís* language.

THE *Búgís* songs and romances are famous among all the islands of the East; and, as far as I can judge, from a very limited knowledge of them, equally excel, in force of thought and fluency of versification. The use of rhyme is much less frequent than among the *Malays*. The melody of the verse depends on the rhythm, and the measure, in the historical poems, has often considerable similarity to some of the species of *Sanscrit* verse. The following lines are given as a specimen from the "*Wépalétei*," the only *Búgís* story in my possession.

Narétélangi napapabaja natokúnruna *Wépalétei*
 Lalo salíwang pasifi aji rito matindro sésimpangi
 Rittomapidang sisulingi matduadua mua kakana
 Wemapamáti natijinruna lalu salíwang rútúpanimpa
 Lakunatillum tirrimakudda Wullirijáwa tó *Sopengi*
 Jillokafawa kakapamáti lúmpuna *China* tujuna *Sabang*
 Naranrukié Lajutenísó sesumangutnah Passaüngé
 Mabaliada wemapamáti richinaruna kuem muá
 Megama katu tudangpaliuna linna samanna tuributíli
 Lolangungé turipasabi ujutanai tádillilé
 Muarinilí aúlaün patalutuna lolangungé.

"IN the morning twilight, when the day began to dawn, awaked *Wépalétei*, and went out of the palace, stepping carefully over those who were sleeping in regular rows, and those who were reposing irregularly, where her elder brothers were sleeping two by two, and along with her went out PAMAI, her nurse and attendant. WULLIRIJAWA of *Sopéng*, went forth, and having opened the beautifully formed window, began to express her grief, "O! my elder sister PAMAI, point out to me the situation of *China* (a district in *Celebes*) and show me in what direction *Sabang* lies, where *Passaüngé* dwells, the brother of *Lajú Tensó*." PAMAI answered, "see how beautifully, the floating clouds

rest on the stately trees of *China*, as if they had been arranged by art. How beautiful are the lawns, which seem as if the earth had of her own accord accommodated herself to the request of man. How graceful wave the trees, with their foliage to the view, and the golden bamboos which enclose the lawns."

THE *Búgís* songs are very numerous. Some of them are short proverbial maxims versified, and display considerable force of both thought and language, but I have not met with any which exhibit the peculiar character of the *Malayu Pantún*. They however exhibit many traits of the peculiar manners of the *Búgís* tribes. In the following specimens, the first alludes to a very common mode of punishing cowardice in *Celebes*, the second to the practice of poisoning weapons, and the last is a brief dialogue between a lover, going to battle, and his mistress, who presents him with her betel-box as a parting token:

Tikkungi talaféi joa maliäi
 Tapafilaféi andraguru maliäi
 Corripe militem segnem, castra,
 Immo ducem timidum castrato.
 Tillu ritumati balubalu rilléléang
 Ria paserakané lanru tojirru
 Túmera ritirilébu dadi aju ta *Sangala*.

There are three articles exposed to sale
 In the clash of combat—the temper of the lance——
 The form of the bullet—and the gum of the poison tree of *Sangala*

Eja rípalínrúng ajamu marakka silla
 Rikóä biríita poli ríalapi sía
 Raja-Tú npa ríkapéku muínappa rínnawating——
 ——Tilla returona salina lupalopaku
 Sapahna rikko otáko tíndria pauwa
 Timmúnroä parúparúng tíndria kampulajangang.

EJA ' object of my secret affection, be not easily moved to grieve,
 Whatever news arrive from the battle, till you see
 My kris *Raja Tumpa* taken from my girdle, but then grieve for the dead——
 ——There are three prohibitions in my betel-box, with which you must conform:
 They are wrapt up in the folds of the betel leaf,—talk not in the time of action——
 Loiter not idly within your tent—skulk not as you advance on the foe.

THE *Mungkásár* poetry is characterized by the same features as the *Búgís*, and their national wars with the *Dutch* is said to be a favourite topic among the poets of that race. The following specimen, which is a poetical challenge, alludes to the diversion of cock-fighting, the favourite amusement of the nation.

Kérimí jangang riwaya bija jangang sundawa
 Niamiunné búngafa tinumbukkéya——
 Bukki tonja kontasilla púna inukké núrúntu
 Tinumbukkéya bára éyapún nifillung.

Where is that courageous cock, that true game-cock, trained to combat——
 For here is his match, full of youthful spirit, yet unconquered——
 Let him then enter the lists with me, if he would be conquered;
 Hitherto invincible, if I am ever conquered, it will be now——

IV. *BIMA*.—The *Bima* language is used in the independent state of *Bima*, which includes the eastern part of *Sumbawa*, and the western part of the island *Endé*, which was childishly denominated *Flores*, by the early *Portuguese* navigators; and, after them, by succeeding voyagers and geographers. If my information is correct, the *Bima* language extends over the greater part of the island *Endé*. The *Bima* language is related in some respects to *Búgís* and *Javanese*, and on the coast is mixed with *Malayú*, but nevertheless it has strong pretensions to originality in its pronouns, verbal auxiliaries, and simple names of objects. In those instances, in which it exhibits a relation to the *Búgís*, it seems

to be more closely connected with the *Mungkásar* than the *Búgís* proper, and yet, in sentences, the difference is striking, as in the following example. "Where is the house of the Rajah?" *Bikey kuassi rumata sang-ngaji.* (*Bima*) *Kéré tujuna embana kéréyeng.* (*Mungk*) The sun, in *Bima* is termed *Mata-liro*; in *Mungkásar*, *Matulo*; in *Búgís*, *Mataso*. A man, in Malay, *orang*, is, in *Mungkásar* and *Búgís*, *taü*; and in *Bima*, *do*. The dialect of *Sumbawa*, which prevails in the districts of the island of that name, which are not subject to the Sultan of *Bima*, is of a more mixed character, and though it appears to contain many original vocables, yet the mass of the language seems derived from other sources, as *Bima*, *Javanese* and *Búgís*. Neither the *Bima* nor *Sumbawa* have any peculiar character, but use, indifferently, the *Búgís* or *Malayan*. I attempted to investigate the relations of both of these languages, by forming comparative vocabularies, of radical words; but not being able to procure any compositions in either of them, I do not flatter myself with having been able to obtain the purest native terms in every instance.

Specimen of the *Búgís*, *Mungkásar*, *Bima* and *Sumbawa* Languages.

	<i>Búgís.</i>	<i>Mungkásar.</i>	<i>Bima.</i>	<i>Sumbawa.</i>
I	{ <i>ic</i> <i>ivo</i>	<i>inukké</i>	<i>nahu</i>	<i>úk, kaji</i>
we	<i>idi</i>	<i>iyó</i>	<i>lamada</i>	<i>déya</i>
thou	<i>mu</i>	<i>ikaté</i>	<i>íta</i>	<i>kita</i>
you	<i>iko</i>	<i>ikau</i>	<i>angomi</i>	<i>mu</i>
he	<i>iko</i>	<i>ikau-ngáling</i>	<i>gomi</i>	<i>kau</i>
they	<i>éä neä</i>	<i>yenjo</i>	<i>scä</i>	<i>iya</i>
this	<i>cämanúng</i>	<i>yangáling</i>	<i>do EJE</i>	<i>jija taünan</i>
that	<i>iäé</i>	<i>yeinné</i>	<i>aké</i>	<i>ta</i>
	<i>yero, yetu</i>	<i>anjoreng</i>	<i>édé</i>	<i>to</i>

	<i>Égés.</i>	<i>Mangkasar.</i>	<i>Éima.</i>	<i>Sumbawa.</i>
who	iga, niga	inai	choété	saí
what	aga	apa	au	komépo
where	pegi	kemi	benchi	mépo
when	siana	ungapana	bunéëi	pidan
which	kéga	kerayéng	mabé	sangmépo
is	unka	nia	wara	adda
will	mélo	eroko	né	roa
can	makúléh	kúlégi	vau	bau
sun	matafo	matalo	matal'ro	matahari
moon	ulúng	búlun	wúra	búlun
star	vitóing,	bintoéng	tara	bintang
wind	anging	angi	angi	angin
rain	bofi	bofi	ura	újin
day	afo	alo	lira	ano.
night	anami	bungí	aimanradi	anopotang
morning	anami	beribafa	aimafidi	anofiof
evening	arawéng	karvéng	aimumbiyang	anoravi
year	taúng	taung	baá	teró
earth	tana	bútta	dana	bumi
water	uwaí	jéné	oi	aik
sea	táfi	tamparang	moti	lét
river	salók	binanga	nanga	pungbúrang
wave	bomba	bombang	ba'úmbe	omak
sand	kafi	kafi	farei	garfék
mountain.	búlúk	monchong	doro	olat
fire	api	pépé	afi	api
stone	batú	batú	watú	batú
gold	ulawúng	bulayeng	máfanganga	bulayéng
silver	saláka	saláka	saláka	saláka
salt	pájé	chéla	siya	aira
iron	bífi	bafi	beú	bofi
lead	túmera	túmbéra	tumbinga	túma
brass	túmbaga	túmbaga	romba	tomaga
white	maputi	kébok	lanta	puti
black	malótong	leling	meé	písak
red	machillah,	eja	kala	méra
yellow	maúui	kuni	moncha	kúning

	<i>Bûgîs.</i>	<i>Mungkásar.</i>	<i>Bima.</i>	<i>Sumbawa.</i>
green	monchombálo	ijow	awa	ijow
blue	magail	gau	kolúbu	kolau
fish	balé	jéku	londé	ampa
fowl	manu	jangang	janga	ayam
bird	manu-manu	jangang-jangang	nafi	piyo
tiger	machang	machang	machan	machan
serpent	ula	ulara	fawa	ula
sheep	bembé	bembé	béé	badéfa

THIS specimen of a comparative vocabulary, will convey some idea of the actual state of these languages, and of the actual variety which subsists in the language of conversation, especially on the coasts and maritime districts. Many of the words which occur in one language, are also found in others, though generally with some difference of pronunciation, and sometimes in an oblique sense. Frequently too, besides the terms which I have selected, which are only those of current use, several other words of the same signification might be found within the compass of the language. Thus, instead of *anging*, wind, in the high *Bûgîs*, *salarung* occurs in this signification; and instead of *saláka*, silver, *bulémata* occurs in the high *Mungkásar* dialect. In the same manner, the personal pronouns in *Bûgîs* terminate their plurals in *manung*; and in *Mungkásar* in *ngasing*, both of which signify *all*. Thus, (*Bûg.*) *idimanung*, (*Mung.*) *ihuttengasing*, we all. (*Bûg.*) *ihomanung*, (*Mung.*) *ikaingasing*, you all. (*Bûg.*) *eāmanung*, (*Mung.*) *yenjo yangngasing*, they all. It is worthy of observation, that the *Udia* language spoken in *Orissa*, forms the plural of its personal pronouns by the addition of the particle *mané*, or *manang*, like the *Bûgîs*. Thus, in *Udia*, *unbhémane*, *tambhémant*, *sémané* or *émané*, signify *we*, *ye*, *they*.

V. **BATTA**.—The *Batta* language, which I regard as the most ancient language of *Sumatra*, is used by the *Batta* tribes, who chiefly occupy the centre of that island. The singularity of their manners, and in particular the horrid custom of anthropophagy, practised by a nation in other respects more civilized than the *Malays* by whom they are surrounded, has attracted the attention of *Europeans* from the time of the earliest voyagers to our own times, but no very satisfactory account, has ever been given of them, as a nation. The best description of them is certainly given by **MARSDEN**, in his history of *Sumatra*, but even that is very imperfect and superficial, and at variance, in some respects, with the information I received from individuals of the nation. **MARSDEN** confines their cannibalism to two cases; that of persons condemned for crimes, and that of prisoners of war; but they themselves declare, that they frequently eat their own relations, when aged and infirm, and that, not so much to gratify their appetite, as to perform a pious ceremony. Thus, when a man becomes infirm and weary of the world, he is said to invite his own children to eat him, in the season when salt and limes are cheapest. He then ascends a tree, round which his friends and offspring assemble, and as they shake the tree, join in a funeral dirge, the import of which is, “The season is come, the fruit is ripe, and it must descend.” The victim descends, and those that are nearest and dearest to him, deprive him of life, and devour his remains in a solemn banquet. This account is certainly more likely to excite incredulity than the account of **MARSDEN**, but it is the account of some of the *Battas* themselves, as well as that of the *Malays* in their vicinity. This inhuman custom is not, however, without a precedent in history, for **HERODOTUS** posi-

tively asserts, that the *Paday* or *Padaioi*, about 500 years before our æra, were not only addicted to the eating of raw flesh, but accustomed to kill and eat their relations when they grew old. Now it is curious that *Batta* or *Batay*, for the name is written both ways, seems to be the very word which, in *Greek*, is rendered *Padaioi*, the letter *p* being almost always pronounced *b* among several of the *Indo Chinese* nations, as in the word *Pali* which is almost always pronounced *Bali*. The following is the account which *HERODOTUS* gives us of the *Paday*, or *Padaioi*.

“ Another *Indian* nation, who dwell to the eastward of these, (the *Indian Ichthyophagi*) are of nomadic habits, and eat raw flesh. They are called *Paday*, and are said to practise such customs as the following. Whoever of the community, be it man or woman, happens to fall sick, his most familiar friends, if it is a man, kill him; saying, that by his pining in sickness, his flesh will be spoiled for them; and though he deny that he is sick, they do not attend to him, but put him to death, and feast on him. When a woman falls sick, she is treated in like manner by her most intimate female associates. They also sacrifice and feast on him who arrives at old age, and this is the reason that so few of them ever attain it, for they kill every one who falls sick, before that period.”* This account of *HERODOTUS* certainly corresponds very minutely with the customs attributed to the *Batta* race, and renders it probable that this modern nation derive their origin from the ancient *Paday* or *Batay*. Neither is it more incredible that the *Battas* should eat human flesh, as a religious ceremony, than that anthropophagy should be practised by the class of mendicants termed *Agóra Punt'h*, in *Bengal*, and other parts of *India*, which

* *HERODOT. Lib. III. s. 99.*

is a fact that cannot easily be called in question. It is surprising that this singular custom has received so little investigation.

THE names of the different *Batta* tribes, of whom I have been able to hear, are the following—

- | | |
|----------------------|---------------------|
| 1. Batta Schalungú, | 5. Batta Toru, |
| 2. Batta Padembanin, | 6. Batta Bila, |
| 3. Batta Kwala, | 7. Batta Kurrúlang, |
| 4. Batta Panmay, | 8. Batta Sipagabu. |

IN many of the *Batta* customs, considerable similarity to those of the *Nairs* of *Malabar* may be traced, as in the law of inheritance, according to which it is not the son, but the nephew, that succeeds.

THE *Batta* language has considerable claims to originality, though it is not only connected with the *Malayu*, but also with the *Bugís* and *Bima* languages. In point of construction it is equally simple as the *Malayu*, but it is with the *Bugís* that it seems to have the most intimate connection. Indeed, the manners of the aboriginal *Bugís* are supposed to have exhibited no small resemblance to the peculiar customs of the *Batta* nation; for the *Rajja* or *Tä-Rajja* tribe, in the central parts of the island *Celebes*, are said still to eat their prisoners of war. The *Batta* language is the chief source of that diversity of dialect which is discoverable in the languages of *Sumatra*. The *Räjing* or *Rejang* dialect is formed by the mixture of the *Batta* and *Malayu*; the *Lambúg*, by mixing *Malay* and *Batta* with a proportion of *Javanese*. The *Karrows*, who are subject to *Achi* or *Achin*, use only a slight variation of the *Batta* language, while the language of *Achi* proper consists of a mixture of *Malayu* and *Batta*, with all the jargons used by the *Mos-*

lems of the east, whether *Hindustani*, *Arab-Tamul* or *Mápillá*. The *Achinese* resemble the *Mápillás* of *Malabar* more than any other tribe of *Malays*: they have long been connected with them as a people, and use many *Mápillá* terms currently in their language. The dialects of *Néas* and the *Poggy* islands, the inhabitants of the latter of which are termed *Mantaway*, by the *Malays*, have perhaps greater pretensions to originality than any of the dialects of *Sumatra*, but resemble the *Batta* more than any other dialect. Hence it may be suspected, that if we were acquainted with the books of the *Battis*, and knew the full extent of their language, in all its variety of expression, elliptic phrases, and obsolete words, the coincidence would be still more striking. There is probably, too, some diversity of expression in these dialects, even in their present state, for in forming a short radical vocabulary of the *Néas* language, I found it differed considerably, in some instances, from the specimen published by MARSDEN, in the sixth volume of the *Archæologia*.

THE *Batta* language has been cultivated by writing, from the earliest times, and numerous books are said to exist in it. I have only been able, however, to procure the names of the following—

1. Siva Marangaja,

2. Siva-Jarang-Mundopa,

3. Reja Isiri,

4. Malamdeva.

THE *Batta* alphabet is peculiar, both in the form of its characters, and in the order of their arrangement. It consists of nineteen letters, each of which is variable by six vocalic sounds like the *Búgís*. In the power of the letters, it nearly corresponds with the *Búgís* and *Javanese* alphabets, the difference between all these being extremely trifling, consisting

solely in one of them expressing two cognate sounds by one character, or adding a new character, or the modification of a character, to express a double consonant of frequent recurrence. But the *Batta* character has another peculiarity; it is written neither from right to left, nor from left to right, nor from top to bottom, but, in a manner directly opposite to that of the *Chinese*, from the bottom to the top of the line, as the *Mexicans* are said to have arranged their hieroglyphics. The material for writing is a bamboo, or the branch of a tree, and the instrument for writing the point of a *kris*, consequently their native forests always furnish them with materials in abundance, and instead of our pages and volumes, they have their bamboos and literary faggots. MARSDEN has given a tolerably correct *Batta* alphabet, in his history of *Sumatra*, but instead of placing the characters in a perpendicular line, he has arranged them horizontally, which conveys an erroneous idea of their natural form. The *Battas*, sometimes, read their bamboos horizontally instead of perpendicularly, as the *Chinese* and *Japanese* do their books, but the *Chinese* consider the correct mode of reading to be from the top to the bottom of the page, and the *Battas* from the bottom to the top. The lines at the top of a *Chinese* page are always regular, and if a line terminates in the middle of the page, the blank space is towards the bottom; now the *Battas* sometimes write on growing trees; and in this case, if a blank space occurs, it is towards the top of the division, a circumstance which determines what they consider as the natural position of their characters. The *Batta* characters, when arranged in their proper position, have considerable analogy to the *Bugis* and *Tágála*. The *Lampúng* and *Rajang* characters coincide in power with those of the *Batta*, though the ar-

angement is different, and so far from being considered as original alphabets, they are only regarded, as far as I could learn, by the *Bartas*, as different forms of the same character. Indeed, the greater part of the differences they exhibit in form, may be fairly attributed to the different materials on which they write, and the different manner of writing; while the diversity in the number and arrangement of the letters may be referred to the same causes which have produced a similar variety in the *Búgi's* alphabet.

VI. TĀGĀLA.—The *Tagala* or rather *Ta-Gála* or the *Gald* language is among the *Philippines*, what the *Malayu* is in the *Malay* islands or the *Hindustani* in *Hindustan* proper. A *Spanish* missionary, who possessed a minute knowledge of this language, has declared, that “The *Tāgála* possesses the combined advantages of the four principal languages in the world. It is mysterious as the *Hebrew*; it has articles for nouns, both appellative and proper, like the *Greek*; it is elegant and copious as the *Latin*; and equal to the *Italian*, as the language of compliment or business.” To examine rigorously the justness of this eulogium, is foreign to my purpose; it is necessary only to state, that it is considered by those who have studied it with most attention, as the radical language, from which the greater part, if not all, the dialects of the *Philippines* are derived. A missionary, who had resided eighteen years in these islands, and whose account of them has been translated from the *Spanish*, and printed by THEVENOT in the second part of his *Relations de divers Voyages Curieuses. Paris 1664*,” declares, that though every district has its particular dialect, yet that these have all some relation to each other, such as subsists among the *Lombard*, *Sicilian*

Tuscan dialects. There are six dialects of this kind, in the island of *Manila*, and two in *Oton*. Some of these are current in several islands, but the most general are the *Tāgála* and *Bisaya*, the last of which is very gross and barbarous; but the other more refined and polished. The opinion of this missionary is confirmed by FRA. GASPARD DE SAN AUGUSTIN, who asserts, that all these particular tongues are dialects of one general language, in the same manner as the *Attic*, *Ionie* and *Æolic*, are all dialects of *Greek*, or as the *Italian*, *Spanish*, *Portuguese* and *French*, are all derivatives from the *Latin*.

THE *Tāgála* language has been cultivated only by the *Spanish* missionaries. The *Tāgála* grammar of FRA. GASPARD DE SAN AUGUSTIN, which has passed through two editions, was printed in 1703, and again in 1787. In his preface, he requests those who are desirous of more numerous examples in the language, to have recourse to other grammars, especially, to that of FRA. FRANCISCO DE SAN JOSEPH, who is elsewhere called the DEMOSTHENES of the *Tāgála* language. A confessional, by the same author, in *Spanish* and *Tāgála*, was published in 1713, and republished with the second edition of his grammar. In 1627, FRA. ALPHONSO A. ST. ANNA published his "*Explicacion de la Doctrina Christiana en lingua Tāgála*," and, besides these, many other religious compositions, both in prose and verse, have been published by the missionaries.

THE *Tāgála* alphabet consists of seventeen letters, three of which are vowels, and fourteen consonants. It is of the same class as the *Búgís* and *Batta* alphabets, and resembles them much in form: and, it is probably from some idea of this similarity, that FRA. GASPARD DE SAN AUGUSTIN, asserts that the *Tāgála* characters were derived from the *Malays*.

The *Tāgála* character is as difficult to read as it is easy to write. It is written with an iron style on bamboos and palm leaves, and the *Spanish* missionaries assert, that the ancient mode of writing was from top to bottom, like the *Chinese*. From the circumstance of their writing with an iron style on bamboos, and from the resemblance of the letters to the *Batta* character, I should rather imagine that the ancient *Tāgála* mode of writing was from the bottom to the top. The *Tāgála* characters are still used in *Comintan*, and in general among the *Tāgálas* who have not embraced christianity; and even by the *Christian* converts, they are still preferred in epistolary correspondence, though the contrary has been insinuated by some of the missionaries, who alledge that the roman alphabet was eagerly adopted, on account of its being more easily read.

THE *Tāgála* language, with a considerable number of peculiar vocables, and great singularity of idiom, is nevertheless to be considered as a cognate language with *Malayu*, *Búgís* and *Javanese*. Few languages, on a cursory examination, present a greater appearance of originality than the *Tāgála*. Though a multitude of its terms agree precisely with those of the languages just enumerated, though the more simple idioms are precisely the same, and though the nouns have neither, properly speaking, genders, numbers nor cases, nor the verbs, moods, tenses or persons, yet the idioms are rendered so complex, and the simple terms are so much metamorphosed, by a variety of the most simple artifices, that it becomes quite impossible for a person who understands all the original words in a sentence, either to recognize them individually, or comprehend the meaning of the whole. In illustrating, therefore, the mecha-

pism of language, few languages are more instructive than the *Tagála*. The artifices which it chiefly employs, are the prefixing or postfixing to simple vocables, certain particles, which are again combined, and coalesce with others; and the complete or partial repetition of terms, in this reduplication, may again be combined with other particles.

THE *Tágála* forms the plurals of nouns by the word *manga*, as the *Malays* by *banyá'k*, both of which signify *many*, and seem to be the very same word, as the *m* and *b* are often pronounced in such an indistinct manner, in the *Indo-Chinese* languages, that they seem neither to correspond exactly to our *m* nor our *b*, but to an intermediate sound. To proper names, the *Tagála* prefixes the particle *si*, and *ang* to appellative nouns. The first of these corresponds to the *Malayu sa*, and the latter to *yang*, both of which are frequently used in *Malayu* in the same manner; but the *Tagála* combines both these with the particles *nya* and *ka*, the first of which signifies *of it*, and the latter *to*; and thus they form *sina*, *kana*, *niní*, *nang*, *which*, (except the last, which is only a different mode of writing the *Malayu nyang*, *of these, who*,) scarcely occur in *Malayu*. The plural of nouns, in *Malayu*, is sometimes formed by the repetition of the singular, and sometimes this repetition is not complete, but consists only of the first syllable or syllables. This also occurs in the *Tagála*, in which language *banal*, the *Malayu banar*, signifies *just, true*, and *tavo* signifies *a man*, corresponding with the *Bugís tau*. A *just man*, in *Tagála*, is therefore, *ang banal na tavo*, or by the addition of another particle, and altering the position of the words, *ang tauong banal*. Now if we substitute the *Malayu* word *orang*, for the *Bugís* and *Tagála* term *tau* or *tavo*, we may render both these sen-

ences thus; *yang orang yang benar*, and *yang benarnya orang*. In the plural, to signify, *just men*, the *Tagála* gives, *ang manga tauong babanal*, to which the corresponding *Malayu* phrase is, *yang banyak orang yang babenar*; or again in *Tagála*, *ang babanalna manga tauo*, to which the corresponding *Malayu* is, *yang babenarnya banyak orang*.

THE simple pronouns, which vary so much in all the dialects of the eastern seas, are nearly the same in *Tagála* and *Malayu*, though it is not very easy to recognize them in the former language when combined with particles. Thus in the first person *ako*, *ko*, *kita*, *kami* are pure *Malayu*; and in the second person, *mu* corresponds equally with *mo*, while *ikaw* and *iyó* seem to be only trivial variations of the *Malayu* *ungkau* and *ayo*. In the third person *siya* is only a variety of *sa yéa* like *siappa* for *sa-appa*, who, in *Malayu*; while *niya*, of him, his, is pure *Malayu*, as are *itu*, that, and *nin* of this, while *yan*, this, and *yain*, that, correspond to *ini* and *anu*. It is however chiefly in the verb that the peculiar character of the *Tagála* language displays itself. The substantive verb is generally omitted altogether, and its meaning is denoted by implication, or the position of the words in a sentence. Sometimes, however, it is expressed by the article *ay*, the contraction of the *Malayu* *adda*, as *Sino ang masipag?* Who is diligent? or rather, Who is he who is diligent? *Ang masipag ay si JAGULA*, it is JAGULA that is diligent, or literally, he who is diligent is one JAGULA.

THE *Tagála* verbs being only names of actions or states of existence, they cannot properly be said to be either active or passive. neither have they any persons, numbers or moods: all these being expressed by particles prefixed or postfixed to the radical word. The principal par-

icles employed in modifying the *Tāgála* verbs are also common to the *Malayu* language. The *Tāgála* particles are *na, nag, mag, pag, ungm, y, an, in*: those which correspond to them in *Malayu* are *na, nyang, meng or mé, peng, yangmeng, yang, an, ahin*. Their significations are radically the same, nor do they differ essentially in their simple application; but in the variety of modes according to which these particles may be combined with the verb, in its simple form, in its reduplicate form, in its semi-reduplicate form, and the variety of transpositions of letters and the changes of one letter for another, *euphoniæ gratia*, which all these combinations give occasion to; in all these, the *Tāgála* is infinitely superior to the *Malayu*, if there is any merit in a superiority which consists in greater intricacy. The changes which occur in *Malayu* are few and obvious, in *Tāgála* they are digested into an extensive and complex system, in which perfect familiarity with every form that the word can assume, not only by the addition of particles, but by the interchange of letters, is necessary to enable a person to detect the radical, which is often more disguised than in the most complex *Arabic* derivatives. Thus in *Tāgála* the root *tolog* signifies to sleep, *natalog ako* I slept, *natotolog ako*, I am sleeping, *matalog*, sleep, *matotolog ako*, I will sleep, *katolog*, *pagkatolog* and *pagkakatolog*, sleeping, *natotologpa ako*, I slept or was sleeping, *ang natotolog*, the sleeper, *ang matotolog*, the person who is to sleep, *nakatolog ako*, I had slept: *natologan*, the having been asleep, *natotologan*, the being asleep, *katologan* and *katatologan*, the being asleep, or act of sleeping, or the sleeping place: and for the plural *nangatologan*, *nangatotologan*, *pangatologan*, *pangatotologan* &c. the particles *na, m, and pa*, becoming *nanga, manga* and *panga*, in the plural. This is an instance in which the changes of the radical word

are very obvious; in the following they are less so, *buhat* 'to lift; *bungmuhat*, *bungmubuhat*, *bumuhit*, *bubuhat*, *pagbuhat*, *nakibuhat*, *na-buhat*, *binuhat*, *binubuhat*, *buhatin*, *bubuhatin*, *nagpabuhat*, *nagpapabuhat*; *magpabuhat*, *magpapabuhat*, *pagpabuhat*, *pagpapabuhat*, *pinabuhat*, *pinababuhat*, *muhat*, *namuhat*, *namumahat*, *mamuhat*, *mamumuhat*, *pina-muhat*, *pinamamuhat*, *pamuhatin*, *pamumuhatin*. The addition of a greater number of particles would still produce a considerable number of additional metamorphoses, in which it would be very difficult to recognize the original radical *buhat*; but these may suffice to shew the genius of the language; and they will also tend to shew the extreme danger that any etymologist or grammarian incurs, who presumes to treat of one of the eastern languages without a radical knowledge of it, and even, in some degree, of its cognate dialects.

THE greatest defects of FRA. GASPAR DE S. AUGUSTIN'S *Tāgala* grammar proceed from his not having comprehended sufficiently the original simplicity of the dialect, nor even the simple artifice by which the greater part of these changes have been effected; and from having composed his grammar on *European* principles, without attending uniformly to the peculiar character of the language.

WITH respect to the original literature of the *Tāgalas*, the accounts of the *Spanish* missionaries are rather discordant. Sometimes they represent them as totally devoid of histories, and books of science; and sometimes they represent them as in possession of many historical poems; not considering that almost the whole body of eastern history must be gleaned from poetical tradition. It however appears, clearly enough, from their own ac-

counts, that the ancient religious traditions of the *Tāgála* race, their genealogies, and the feats of their gods and heroes, are carefully preserved in historical poems and songs, which, in their youth, they carefully commit to memory, and are accustomed to recite during labour and long voyages, but particularly at their festivals and solemn lamentations for the dead. These original memorials of the race, the missionaries have, with pious care, attempted to extirpate, and have employed themselves sedulously in composing ~~new~~ tracts, both in prose and verse, in the *Tāgála*, with the hope of supplanting the remains of national and pagan antiquity. Many psalms and hymns, and even some of the *Greek* dramas composed by DIONYSIUS AREOPAGITA, have in this manner been translated into the *Tāgála* language. Among this brood of *Tāgála* poets, the names of FRA. ANTONIO DE S. GREGORIO, of FRA. ALONSO DE S. ANA, and of FRA. PABLO CLAIN, the translator of *Kempis*, into *Tāgála*, are celebrated, but the most illustrious of them all, says the reverend father GASPAR DE S. AUGUSTIN, is FRA. PEDRO DE HERRERA, the very HORACE of the *Tāgála* language, as appears by his book of "*Pos-trimerias*." With the original *Tāgála* poetry I am unacquainted, and I believe no specimen of it has been hitherto published. S. AUGUSTIN, in his grammar, treats, indeed, of *Tāgála* poetry, but he piously confines his examples to the works of his ghostly brethren. He observes, that the *Tāgála* verse, is only regulated by the rhythm of the syllables, and the similarity of the vowels in the close. This similarity of the terminating vowels does not amount to regular rhyme, for the consonants may be totally different, though the vowels are similar, as in the *Spanish* rhymes termed *Asonantes*. Thus *laglag* and *taltal sūt* and *cahuy*, *silip* and *bukkir*,

However imperfect as rhymes, are all that is required in the terminations of *Tagála* verse. The *Tagála* metres, adds the same author, are rather lyric than heroic, and he adduces specimens of several *Latin* and *Castilian* measures, imitated in that language, besides a legitimate sonnet, addressed to himself, on publishing his *Tagála* grammar by FRA. JOSEPH DE EL VALLE. The following specimen from the *Tagála* version of one of the dramas of DIONYSIUS ARZOPAGITA, is an imitation of the comic verse of *TERENCE*.

Dito sa dakkilang kaharian nang *Grecia*
 Ay itong bayannang *Athenas* lalo, at mona
 Sa ibang manga bayang na safakop baga
 Hangan saona, at magpangayon pa.

BESIDES the *Tagála* nation, there are several other races, which inhabit these islands, who differ considerably from each other in features, language, and the various relations of the social state; but concerning them, it is more difficult to speak with any degree of certainty. Such are the *Pampangos*, who reside to the north of *Manilla*; the *Bisayas*, who are generally diffused over the *Philippines*; and the painted race, termed, by the *Spaniards*, *Pintados*, who are, by some, reckoned a branch of the *Bisaya* nation, and allied to the *Tagála* and *Búgís* races; while, by others, they are supposed to be of the same origin as the *Haraforas*.

Of the *Bisaya* language, I have seen some lists of words. It appears to be either mixed with *Tagála*, or derived from the same source; but it is seldom possible to judge of any of the eastern languages from a few straggling specimens, formed in the hurried, inaccurate and incurious manner in which these are generally collected. For this reason, I shall offer no observations on the *Pampango* language, of which I have also seen

specimens; on the *Biaju*, *Tirún*, or *Idán* languages of *Borneo*; nor on the *Harafora*, or the *Pupua* languages of the eastern isles. The *Súlú* tongue is a very mixed dialect, but is derived chiefly from the *Malayu*, *Javanese* and *Tágála*. FORREST, however, is inclined to refer its peculiarities to the *Bisaya*. The language of *Melindenow*, or *Magindano*, which nearly coincides with the *Lanún* dialect, is also a compound of *Malayu*, *Búgís* and *Tágála*, with a certain proportion of the ancient *Tarnata* or *Molucca* language, which seems to have been an original tongue. The *Biaju* language is reckoned original, but it has no written character. The *Biajús* are of two races; the one is settled on *Borneo*, and are a rude, but warlike and industrious nation, who reckon themselves the original possessors of the island of *Borneo*. The other is a species of sea-gypsies, or itinerant fishermen, who live in small covered boats, and enjoy a perpetual summer on the eastern ocean, shifting to leeward, from island to island, with the variations of the monsoon. In some of their customs, this singular race resemble the natives of the *Maldivé* islands. The *Maldivians* annually, launch a small bark, loaded with perfumes, gums, flowers and odoriferous wood, and turn it adrift at the mercy of the winds and waves, as an offering to the *Spirit of the winds*; and sometimes similar offerings are made to the spirit whom they term *the King of the Sea*. In like manner the *Biajús* perform their offering to the god of evil, launching a small bark, loaded with all the sins and misfortunes of the nation, which are imagined to fall on the unhappy crew that may be so unlucky as first to meet with it.

THE *Tirún* or *Tedong* tribes live chiefly on the N. E. coast of *Borneo*, and are reckoned a savage and piratical race, addicted to eating

the flesh of their enemies. With their language I am totally unacquainted, but it is reckoned peculiar. It is very probable, however, that they are only a tribe of *Idán*, whom, again, I imagine to be only a race of *Haraforas* or *Alfoërs*, as they are termed by the *Dutch*, who seem to be the most ancient and original race of all the eastern islands, excepting, perhaps, the *Papuas*. The *Idán* are sometimes termed *Marút*; they are certainly the original inhabitants of *Borneo*, and resemble the *Haraforas* equally in stature, agility, colour, and manners. The *Haraforas* are indigenous in almost all the eastern isles, and are sometimes found on the same island with the *Papuas* or oriental negroes. They are often lighter in colour than the *Muhammedan* races, and generally excel them in strength and activity. They are universally rude and unlettered, and where they have not been reduced to the state of slaves of the soil, their manners have a general resemblance. In their manners, the most singular feature is, the necessity imposed on every person, of some time in his life, embruing his hands in human blood; and in general among all their tribes, as well as the *Idán*, no person is permitted to marry till he can shew the skull of the man whom he has slaughtered. They eat the flesh of their enemies, like the *Battas*, and drink out of their skulls; and the ornaments of their houses are human skulls and teeth, which are, consequently, in great request among them, as formerly in *Sumatra*, the ancient inhabitants of which are said to have originally had no other money than the skulls of their enemies. The *Haraforas* are found in all the *Moluccas*, in *Celebes*, the *Philippines*, and *Magindano*, where they are termed *Subano* or *Manubo*; and the ferocious race mentioned by *MARSDEN*, who live inland from *Samanta* in *Sumatra*, and

are accustomed to atone their own faults by offering the heads of strangers to the chiefs of their villages, are probably of the same description.

THE *Papuas*, termed by themselves *Igoloté*, but by the *Spaniards* of the *Philippines*, *negritos del monte*, from their colour and woolly hair, are the second race of aborigines, in the eastern isles; in several of which they are still to be found, and in all of which they seem to have originally existed. Some of their divisions have formed small savage states, and made some advances towards civilization; but the greater part of them, even with the example of more civilized races before their eyes, have betrayed no symptoms, either of a taste or capacity for improvement, and continue in their primitive state of nakedness, sleeping on trees, devoid of houses or cloathing, and subsisting on the spontaneous products of the forest, or the precarious success of their hunting and fishing. The natives of the *Andaman* isles seem to be of this race, as also the black mountaineer tribes of the *Malay* peninsula, termed at *Kiddeh*, *Samang*; at *Perak*, and in the *Malay* countries to the N. W. of *Kiddeh*, *Bila*; while to the southward of *Pera'h*, and through the straits of *Malacca*, to the eastward, they are termed *Dyak*. The *Papuas*, or oriental negroes, seem to be all divided into very small states or rather societies, very little connected with each other. Hence their language is broken into a multitude of dialects, which, in process of time, by separation, accident, and oral corruption, have nearly lost all resemblance. The *Malays* of the peninsula, consider the language of the blacks of the hills as a mere jargon, which can only be compared to the chattering of large birds; and the *Papua* dialects, in many of the eastern isles, are generally viewed in the same light.

THE *Arabs*, in their early voyages, appear to have frequently encountered the *Papuas*, whom they describe in the most frightful colours, and constantly represent as cannibals. They are mentioned by the travellers *IBN WAHAB* and *ABU-ZEÏD*, in the *Silsilet-al-Tuarikh*, translated by *RENAUDOT*, and nearly the same accounts seem to be repeated by *MA-SUDI*, *YAKUTI* and *IBN AL WARDI*. The following passage, which gives the name of one of the tribes, is adduced from the *Persic* treatise termed *Seir ul Aklim*, the author of which appears to have visited the eastern islands. After mentioning the great island of camphor, probably *Borneo*, he adds, "Beyond this are other islands of different sizes, among which there is one of considerable extent, inhabited by a race of blacks termed *Kahálut*, who resemble brutes in form, and when they can seize on a person, they kill and eat him. Of this practice, I have had experience, having escaped only by throwing myself into the sea; as the saying is, 'when you are going to be slain, throw yourself into the sea, and perhaps you may survive.' Even so it happened to me, for getting on the trunk of a large tree, I kept my hold for three days, when I was thrown by the force of the winds and waves on a desert shore, and after enduring much hunger and thirst, reached, at last, an inhabited country."

THE tribes of the eastern islands exhibit a variety of singular and interesting appearances, not only in the civil and political, but also in the natural and moral history of man. If some of them appear in a naked and primitive state of barbarism, in others the vestiges of ancient art and science indicate, that they have suffered a relapse from a prior state of civilization. This is particularly obvious among the *Malay*, *Javanese*, *Batta* and *Bugís* tribes, among whom the polished

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te, and elevated sentiments, of many of their compositions, and their dexterity in some of the arts, especially the compounding and working of metals, form a singular contrast with the neglect of personal morality and the relaxation of all the bonds of society; while ancient and wise regulations are in a great measure superseded by the most absurd and barbarous usages. Among the most barbarous of the *Harafora* and *Papua* races, there are some, who whether male or female, use no species of cloathing whatsoever, and consequently exhibit few traces of that modesty which is supposed to be innate in the human species. The same phenomenon, whether natural or produced by situation, is exhibited among the *Biajus*, the families of whom live constantly together, on the sea, in small boats. Vestiges of cannibalism appear to exist among the greater part of the rude tribes in the eastern isles, but the *Battas* of *Sumatra*, who are superior to the *Malays* in the knowledge of the arts and letters, have likewise preserved it; as well as the *Tabunka* tribe in *Celebes*. Of many of the most absurd, unnatural and barbarous of their usages, it is obviously impossible to form a just opinion in the present state of our knowledge, as we are totally ignorant of the spirit of them, and of the system of opinions with which they are connected. Some of them may find a parallel in *India* and *China*; and it may be observed, that both the *Indian* and the *Indo-Chinese* monuments contain many allusions to a state of society and manners on the continent similar to that which subsists among the most barbarous of the tribes of the eastern isles. Perhaps, too, we shall be disposed to regard, with some degree of complacency, the most absurd and the most illiberal portions of the religious systems of *BRAHMA*

and BUDD'HA, if we consider the dreadful superstitions that they probably supplanted, and the brutal state of savage existence which they exchanged for civil polity and social order. The *Vanaras* of *Hunuman* are reckoned a tribe of mountaineers, even by many of the *Hindús*. The barbarous, but brave and active *Idán* of *Borneo* are termed *Marút*, which is the *Sanskrit* name of the forty-nine regents of the winds, and companions of INDRA. The standard of the *Battas* is a horse's head, with a flowing mane, which seems to indicate a connection with the *Hayagrivas* of *Sanskrit* history. In the present state of our knowledge of these tribes, however, it is not conjecture, but rigid and accurate description that is required; and, in the present instance, it is not my object to consider their civil, political or moral relations, unless as far as these affect the philological investigation of their languages and literature. As the chief utility that results from the examination of some of these ruder dialects, is to enable us to ascertain the limits of languages, more interesting, and important, perhaps it may be thought that great minuteness would be misapplied on objects of such secondary importance. It must, however, be recollected, that success in important researches, often depends on the accuracy with which inferior investigations have been conducted; that, in commencing an investigation it is not always easy to predict what will ultimately prove of superior, or inferior importance; and that, at all events, it is safer to bestow too much attention, than too little, on what must be the basis of historical investigation. In all such inquiries, I therefore do not hesitate to adopt the sentiment of the learned LE LONG, that "Truth is so interesting and satisfactory,

when perceived, that no pains should be spared to discover it, even in the smallest matters."

VII. *RUKH'NG*.—The *Rukh'ng* is the first of that singular class of *Indo-Chinese* languages, which may be properly termed monosyllabic, from the mass of their radical words consisting of monosyllables, like the spoken dialects of *China*. These monosyllables are subjected to great variety of accent, and intonation, in almost every instance: and require an accuracy of pronunciation and a delicacy of ear in speaking and comprehending them, far beyond what is requisite in the languages of *Europe*, or even in the polysyllabic languages of *Asia*. The *Indo-Chinese* languages of the monosyllabic class, borrow a considerable variety of terms from the *Pali* or *Bali*, which exists among them, as the language of learning and science; but in adopting these polysyllables, they accommodate them to their peculiar enunciation, by pronouncing every syllable as a distinct word. The *Rukh'ng* is the language of the original inhabitants of *Arakan*, who adhere to the tenets of *Budd'ha*. Forming, in ancient times, a part of the empire of *Magadha*, from which they seem to have derived the name of *Mug* or *Mauga*, by which they are generally termed by the inhabitants of *Bengal*; and being, from their situation, more immediately connected with *India*; their language is by no means purely monosyllabic, but forms, as it were, the connecting link between the polysyllabic and monosyllabic languages. The *Rukh'ng* race is admitted to be of the same radical stock as the *Barmas* or *Birmans*, and is understood to have greatly preceded that nation in civilization. The *Barmas*, indeed, derive their own origin from the *Rukh'ng*, whom they generally denominate *Bárma kyí*, or the great *Barmas*, and they consider

the *Rukhíng* as the most ancient and original dialect of the *Barma* language. This idea is certainly correct, and it may be added, that the *Rukhíng* orthography and pronunciation are neither so defective, nor so much corrupted as the *Barma*, and that consequently, in tracing the history of the language, the *Rukhíng* is of much greater utility to the philologist. In another respect the language may be considered as purer; until their late conquest by the *Barmas*, the tribes of *Rukhíng* seem for a long period to have retained their independence, while the proper *Barma* tribes have suffered various revolutions. Hence the *Rukhíng* retains more of its ancient form, and is less corrupted by foreign mixtures. The modifications, therefore, which it has received, are chiefly derived from the *Páli* or *Bali*, which was cultivated in the country as the learned language; and contained all their sacred books. The *Rukhíng* has accordingly adopted *Bali* words and phrases more copiously than the *Barma*, and has also preserved them in a greater state of orthographical purity. The pronunciation of the *Rukhíng* is perhaps broader and grosser, but more articulate than the *Barma*; in particular it strongly affects the use of the letter *r*, which the *Barmas* generally convert into *y*, in their pronunciation. Such, however is the difference of pronunciation between the two nations, that, even in sentences, where the words are nearly the same, they are not easily intelligible to each other.

THE *Rukhíng* alphabet coincides accurately with the *Devanagari* system of characters in its arrangement, and very nearly in the power of the particular letters. The only variation of importance is, the expression of both the acute and grave accent of the vowels, as well as their common sound, in certain cases. This provision, however, does not ex-

tend to all the vocalic sounds in the *Rukhíng* alphabet, but only to those sounds, of this species, which are of most general use. A similar contrivance for the expression of accent, occurs in all the alphabets of the monosyllabic languages, but varies, in extent, according to the exigencies of a particular language. Thus, in *Rukhíng*, after the simple alphabet, follow the combinations of the simple letters, with *wa*, *ya*, *ra*, and of *h* preceding them. Then follow some triple combinations of the same letters, after which are exhibited the common forms of syllables which terminate in a consonant, as *ah*, *ang*, *aich*, *a't*, *a'p*, and others of a similar kind; and finally the varieties of accent, as acute and grave, are presented, in those vowels and nasals which are chiefly subject to be influenced by them.

THE *Rukhíng* character has considerable similarity to the *Barma*, in the greater part of its letters. The following simple characters, however, *g'ha*, *ja*, *j'ha*, *nya*, *ta*, *pha*, *da*, *na*, *d'ha*, *ra*, *lla*, as well as some of the more complex combinations, differ greatly from the respective forms of these characters in the *Barma* alphabet, and exhibit considerable resemblance to some of the ancient *Canara* characters. The *Rukhíng* simple alphabet is exhibited with considerable correctness by Capt. J. TOWERS, in the fifth volume of the *Asiatic Researches*, though many of his particular observations, as well as general views, are far from being accurate; chiefly, it may be presumed, from the novelty of the investigation.

THE *Rukhíng* language, in the simplicity of its structure and expression, has great analogy to the *Malayu*. It has properly no numbers,

cases, nor flexions, in its nouns; nor conjugations, moods, tenses, or persons, in its verbs. Many words have a substantive, adjective, or verbal signification, according to their position in a sentence; but, in general, the names of objects, qualities and actions, are sufficiently distinct from each other. The plurals of nouns are formed by numerals, or words expressive of plurality as *lú*, a man, *lú-súng-rawk*, three men, *lú ákung*, many men, *lú ákung-lúng*, all men; *mímma*, a woman, *mímma akúng-su*, many women. Comparisons are made by particles expressive of number or quantity, such as *mya*, or *mrét-té*, much; *akré* and *hlaré*, very; *prét*, less, under; *akúng*, many. Cases are expressed by particles equivalent to the prepositions or postpositions of other languages, or by juxta-position, which has often the force of the genitive in the *Rukhêng* language. Thus, a man's hand, may be expressed indifferently by *lú-lák*, *lú-hma-lak*, or *hú-chwá-lák*.

THE simple pronouns are *nga*, I, *ko*, or *móng*, thou, and *yang-su*, he; the plurals of which are formed by the addition of *ro*, as *nga-ro*, we; *mong-ro*, ye; *yang-su-ro*, they. But in addition to these simple pronouns, there are various others, which indicate rank and situation, as in *Malayu*, *Chinese* and the monosyllabic languages in general, which have, all of them, paid peculiar attention to the language of ceremony, in addressing superiors, inferiors and equals. These ceremonial forms in *Rukhêng* are sometimes formed by particles added to the simple pronouns, and sometimes they are significant terms, such as servant, lord, highness, majesty, used pronominally, or rather in an absolute sense, without any expressed pronominal adjuncts; as in addressing a superior, when

the terms *asyang*, *lord*, *sir*; *sak'hang*, *highness*; *khang-p'rd*, *majesty*, are employed.

THE pronouns in common use in *Ruk'héng*, according to this variety of ceremonial forms, may be thus exhibited.

<i>I, we,</i>	<i>thou, ye,</i>	<i>he, they,</i>
<i>nga,</i>	<i>kó,</i>	<i>dang,</i>
<i>nga-ro,</i>	<i>móng,</i>	<i>yang-su,</i>
<i>nga-ro.hma,</i>	<i>nang,</i>	<i>yang-su-ro,</i>
<i>kyéwéng,</i>	<i>awey,</i>	<i>su-ro.</i>
<i>akyéwéng,</i>	<i>mong-hma,</i>	
<i>akyéwéng-hma,</i>	<i>mong-ro,</i>	
<i>akyéwéng-ró,</i>	<i>mong-ro-hma,</i>	
<i>akyéwéng-ro-hma,</i>	<i>nang-ro,</i>	
<i>akyewéng-tza-ré,</i>	<i>nang-hma,</i>	
<i>akyewéng tz'hang-ré-ro,</i>	<i>nang-ro-hma,</i>	
	<i>awey-ro,</i>	
	<i>awey-hma,</i>	
	<i>awey-ro-hma,</i>	

To explain the particular instances in which each of these pronominal terms is used, is not consistent with my present object, which is only to present a general outline of the structure of the language.

THE moods and tenses of the verbs are in like manner expressed by means of particles, or significant words, like our auxiliary verbs. Such are *si*, *hi*, *hi-ré* and *le-bi*, *is*; *bri* and *lé yákh*, *is*, *been*; *bri-ré* and *bri-kha ré*, *was*; *míy*, *will*; *ra* and *ra-mé*, *may*, *can*; *yaung*, *let*, *permit*; *hi-sua*, *been*. The position of these particles in a sentence, is often, however, a matter of considerable difficulty, and is one of the circumstances in which the elegance of style chiefly consists. The style chiefly affected in *Ruk'héng* composition, is a species of measured prose, regulated by accent

and the parallelism of the members of a sentence. Rhyme, however, is not required, either in the terminating consonants or vowels, though it frequently occurs from the structure of the language. The general form of this measure seems to be four long syllables, each of which, however, is convertible into two short ones, or may have a short one interpolated before or after it. Thus, the passage adduced by Captain Towers from the *Manú Saingwan*, as a specimen of his system of orthography in his "*Observations on the Alphabetical System of the Language of Awa and Rac'hain*," may be arranged.

Maha sámāta,
Man grí chak-kráwālā,
San'khra prain braun,
Tain dain pī' tá,

Tain-kha hnaik ch'haun',
Khté sō t̃chhé,
Shai'ch pá sō T'hám-mă-sát,
Cha ga do go &c.

SOMETIMES, however, more complicated measures are employed in *Rukhng* composition, in imitation of those which occur in *Bali*. Many interesting works are represented to exist in the *Rukheng* language, but the greater part of them are translations from the *Bali*. The "*Til-lawar Cherita*" is said to contain the historical traditions of the *Rukhng* nation: the "*Karik*," composed by ANGULI-MALA, and the "*T'ham-ma-sat*" or *Dherma Sastra*, contain their system of religious observances, and code of laws. The following is a list of the most popular *Rukheng* compositions.

1. Raja-buntza,
2. Raja-wongtza,
3. Témi,
4. Némi,
5. Janaka,
6. Suwanna-sfyung,

7. Bhuridat,
8. Tzaingdá-gúngma,
9. Sada-hyei'chachaung,
10. Mahó,
11. Uni-nga-gyaing,
12. So'p-foung-gyénng,

- | | |
|--|------------------------------|
| 13. Bhuridat-kapyá, | 47. Péda-fow't, |
| 14. Bo-thi-hmain-déi, | 48. Mungāla-fow't, |
| 15. We-faing-dara, | 49. Khunei'ch-ra'k, |
| 16. Saing-we-ra, | 50. Khunei'ch-ra'k-parci'p, |
| 17. Krauk-ché, | 51. Patha-wi-jé'ya, |
| 18. Nara-cho, | 52. Sa-gra-ú-ch'howng, |
| 19. Athi'k-bala, | 53. Lé-keweng-u-ch'howng, |
| 20. Abhi-dam-ma, | 54. Sit-t'ha-da-nú, |
| 21. K'hunei'ch-kyéng, | 55. Sat-powng, |
| 22. Para-ma-faing-gou'k-kyéng, | 56. Sat-véng, |
| 23. Maha-Raga-t'ha-kyéng, | 57. Sat-hnéwaing, |
| 24. Sapa-kyéng, | 58. Sa-hrwé-k'hé, |
| 25. T'ham-ma-fat-kweing-khya, | 59. Moé-tó-krang-cha, |
| 26. T'ham-ma-fat-kra'k-ru, | 60. Gu-waing-podi-mowng-cha, |
| 27. T'ham-ma-fat-Manú, | 61. Thi-to-padé-fa, |
| 28. T'ham-ma-fat-krudaing, | 62. Noma-ko-ga-tha, |
| 29. Logafara, | 63. Täché-hnei'ch-ra-si, |
| 30. Sa-bri-hla, | 64. Khowng-gri, |
| 31. Taing-t,haü, | 65. Khowng-láp, |
| 32. Radana-hrwé-khai, | 66. Khowng-ngé, |
| 33. Radana-paing-gúng, | 67. Tā-hnaung-gra, |
| 34. Rudana-paddaing, | 68. Mé-t'haung-gra, |
| 35. Radana-kweing-khya, | 69. Su-mé-t'ha, |
| 36. Radana-powng-khyowk, | 70. Rewatta-cha, |
| 37. Ba-na't-fa | 71. Afwa-pida, |
| 38. Kraing-ma-tei'ch-p'hak-powng-wat'hu, | 72. Prowng-bra, |
| 39. Nga-tzi-lāda-pring-do, | 73. Owng-pa-di-cha, |
| 40. Ga'p-p'ha-kyéng, | 74. Paing-pru-cha, |
| 41. Lakhana-di-ba, | 75. Uga. |
| 42. Noma-kapya, | 76. Mowng-chwa-cha, |
| 43. Nga-chaing-braing, | 77. Cho-ré, |
| 44. Rama-wut'hú-cha, | 78. Ya't-ré, |
| 45. Bramafara, | 79. Lúng-di-cha. |
| 46. Bud-dho-wa-da, | |

FROM this list, it is evident, that the subjects of some of these works are the adventures of characters well known in *Sanscrit* mythology, as the *Rama Wut'hu* or history of RAMA, the *Budd'ho-wa-du* or history

of the *Avatar* BUDD'HA; others of them seem to be only *Rukhíng* versions of well known *Sanscrit* compositions, as the *T'hi-to-pa-dé-sa*, or *Hitopadesa*, the *T'ham-ma-sut-Manu*, or *Dherma-sastra* of *MENU*. The *Suwanna-Asyang* is the popular story of *SUVURNA SRINGI*, or the golden cow, formed by the Bráhmén *SUMBUKARA MISRA*, and presented to *Raja MUKÚNDA DEVA GAJAPATI*. The *Bhuridat* is the history of *Raja BHURIDATTA* of *Magadha*, mentioned in the *Maha Bharata*, and the *Bhuridat-kápya*, or *Bhuridutta-kavya*, is a poem on the same subject. The *Raja-buntza* is the *Rukhíng* edition of the *Raja Vamsavali*, the *Rajah-Wongtza* is a different work on the same subject, and the *Pat'ha-wi-jéya* seems to be the *Prit'hu-vijéya*. Of the modifications they have received, in the process of translation, I have hitherto had little opportunity of judging, but as far as I have been able to investigate the subject, not only the style, but the incidents and progress of the *Sanscrit* narration is generally altered, to render them more illustrative of the ascetic doctrines of the *Budd'híst* sect; such as the guilt of killing animals, even accidentally; and the perfection acquired by *Rishis* in solitary retirement, by means of sublime penance and meditation.

THE *Rukhíng* language has never been cultivated by *Europeans*; the observations on its alphabetical system by Captain *TOWERS*, and the short specimen of its vocables in Dr. FR. *BUCHANAN*'S "*Comparative Vocabulary of some of the Languages spoken in the Burma Empire*", both in the 5th vol. of the *Asiatic Researches*. being all that has been published concerning it in any *European* language. The specimen given by Dr. FR. *BUCHANAN*, only varies from the *Barma* in seven words out

of fifty, and these are only varieties of pronunciation, excepting "*lon-shee*" a child, which is also *Barma*, and *mateinay*, which seems to be an error, as it does not signify *to sit*, either in *Rukh'ing* or *Barma*, but literally "*does not stand*," the proper *Rukh'ing* term being *ra't chowk*. The words in the vocabulary certainly exist in *Rukh'ing* as well as in *Barma*; but in some instances different words are in more general use, in the former; as *ahri*, *long*, instead of *she'*, and *pu-mro-naing-grong*, *beast*, instead of *taraitzan*. The *Rukh'ing* pronunciation, sometimes too, is modified by the *Burma*, and the letter *r* is almost always omitted in the specimen, though it is a distinguishing characteristic of the *Rukh'ing* pronunciation. Thus, the *Rukh'ing* requires *mri gri*, *earth*, instead of *myaggye*, in the specimen; *kri*, *great*, instead of *kyee*; *kripamó*, *foot*, instead of *kiapamo*; *krow'k*, *six*, instead of *kiouk*; *kri*, a *star*, instead of *kyay*, and *ni*, *the sun*, instead of *nay*. These errors, however, are not to be attributed to Dr. FR. BUCHANAN, nor detract, in the least, from the merit of his exertions in commencing the investigation; they evidently proceed from the inaccuracy, hurry and indistinct pronunciation of his *Barma* assistants, and in his situation were perhaps not to be avoided, unless by attending to the native orthography.

Dr. F. BUCHANAN has also exhibited comparative specimens of two mixed dialects, spoken in *Arakan*; the first termed *Ruinga*, spoken by the *Moslems* of the country, and consisting of a mixture of *Arabic*, *Hindi* and *Rukh'ing*; the second, termed *Rusan*, used by the *Hindis* of *Arakan* who adhere to the system of BRAHMA, and formed by a large proportion of corrupted *Sanscrit* and *Bengali*, united to a comparatively small portion of *Rukh'ing*. The dialect of the province of *Yo*, as it is pronounced

by the *Barmas*, and *Ró* as it is termed by the *Rukh'ing* is only a slight variation of the *Rukh'ing*, which it approaches much nearer than the *Barma*. The range of mountains to the north and east of *Rukh'ing* is inhabited by a race termed *Kh'ing*, by the *Rukh'ing* and *Barma* tribes, or as it is written by Dr. FR. BUCHANAN, *Kiayn*; but who term themselves *Kolún*, and whose language is peculiar, having little or no affinity to either *Rukh'ing* or *Barma*. From the two names, *Ró* and *Kh'ing*, the name of *Rukh'ing* is generally derived; but the national name of the *Rukh'ing* race is *Ma-rum-ma*, which seems to be only a corruption of *Maha-Vurma*; *Vurma* being an epithet generally assumed by the tribes of *Kshatriya* extraction. The inhabitants of the mountains between *Rukh'ing* and *Chatigan* are termed *Sa-mowng-syang* by the *Rukh'ing* tribes, and are asserted to speak a different language. They are probably only a division of the *Kh'ing*, or *Kolún*. Whether these are the same with the *Kúkís*, who inhabit the high ranges of hills to the N. E. of *Chatigan*, I have not been able to determine. In the able and curious description of this singular race, given by J. MACRAE, Esq. in the seventh volume of the *Asiatic Researches*, the languages of the *Kúkí* and *Mug*, or *Rukh'ing* races, are said to be so intimately connected as to be mutually intelligible. That the two adjacent tribes should be mutually able to understand each other, is very probable; but that their respective languages are connected, in this instance, I apprehend to be very dubious; for in a specimen of above 500 radical terms of the *Kúkí*, which I owe to that gentleman's politeness, I find very few which are similar to the corresponding *Rukh'ing*, or that were understood by an intelligent native of *Arakan*. The subject, however, requires further investigation,

and there seems to be no person better qualified than Mr. MACRAE, for prosecuting the inquiry, both by his abilities, and his situation.

VIII. BARMA.—The *Barma* language is used by the great and powerful nation of the *Barmas*. The name of this nation has been written differently, by almost as many authors as have mentioned it, while no person seems to have thought it worth his while to inquire how the *Barmas* wrote their own name. This they constantly write *Barma*, though from affecting an indistinct pronunciation, they often term themselves *Byamma*, *Bomma* and *Myamma*, which are only vocal corruptions of the written name. AMADUTIUS, however, in his preface to the “*Alphabetum Barmanum seu Bomanum*,” with equal ignorance and confidence, denies flatly, that any nation, country, city or language, exists, which, by the natives themselves, is denominated *Barma*. This name, he asserts to have been introduced solely by the ignorance and ~~vicious~~ pronunciation of *Europeans*, since, says he, by the analogy of the language, the nation is denominated *Bomah*, the great nation, from *bo*, the head, a chief, and *mah*, a man. This silly vapouring etymology is, however, entirely averse to the established orthography of the *Barmas* themselves, and only worthy of P. PAULINUS, or a modern *Frenchman*.

THE *Barma* language, like the *Rukhéng*, in its original state, appears to be purely monosyllabic, but it has borrowed freely from the *Bali*, and in imitation apparently of that language, it has sometimes formed words of some length, by the coalescing of its original monosyllables. Being completely devoid of every species of flexion, whether in nouns, pronouns, or verbs, its construction is extremely simple, and depends almost solely on the principle of juxtaposition, like its cognate dialect, the

Rukhîng, which it resembles in structure. Its pronouns and particles are peculiar, its idioms few and simple, and its metaphors of the most obvious kind; but it is copious in terms expressive of rank or dignity, and the rank of the speaker is characterized by the language he uses.

THE *Barma* alphabet corresponds to the *Bali*, and is regulated by the same principles of accentuation. In point of form, it has considerable resemblance to the *Canara*, *Singala*, and *Telinga* alphabets, but is rather more simple in the formation of the character. CARPANIUS, in his "*Alphabetum Barmanum seu Bomanum*," is inclined to derive the *Barma* character immediately from the square *Bali*, used in *Ava*, and both of them from the *Hebrew*, through the medium of the *Persic*. AMADUTIUS, improving on this idea, or rather adopting that of BAYER, seems to be desirous of deducing both, as well as the *Malabar* or *Malayalam*, from the *Armenian*, a character to which they have scarcely the remotest resemblance, and the origin of which, is itself involved in great obscurity.

THE character of the *Barma* language has a very considerable effect on the style of the compositions it contains. Repetitions of the same turn and expression, are rather affected, than shunned; and a kind of naked strength and simplicity of phrase, with short sentences, pregnant with meaning, are the greatest beauties which the language admits of. "The *Bomans*" says CARPANIUS, "in their poetry, are more careful of preserving similar terminations, than an equal number of syllables, and use this style, particularly in treating of religious subjects." The fact, however, is, that the similarity of termination is neither sought, nor shunned; but recurs from the genius of the language, very frequently. The

style of the principal *Barma* compositions is a species of measured prose, regulated almost solely by the accent, as in the *Rukhíng*, the different dialects of *Chinese*, and the other monosyllabic languages. The tone of polished conversation requires an approximation to this style of composition. The verb is generally placed in the close of the sentence, and the defect of conjunctive particles, to connect the different members of a sentence, renders a considerable degree of repetition absolutely necessary to prevent confusion.

THE *Barma* language has been highly cultivated in composition, and contains numerous works in religion and science. Besides numerous books on astrology, mythology, medicine, and law, in the latter of which the most important is the *Dam-ma-Sat kyee*, or great system of justice, with the Constitutions of the *Barma* princes. The *Barmas* are asserted, by Dr. BUCHANAN, to possess numerous historical works, relative to the different dynasties of their princes, the most celebrated of which is the *Maha-raja-Wayngee*. "These people," says he, "have also translated histories of the *Chinese* and *Siamese*, and of the kingdoms of *Kathee*, *Kó-shan-pyee*, *Pagoo*, *Saymmay* and *Laynzayn*." On the importance of such works, supposing them to be strictly of a historical nature, it is needless to dilate. It appears probable, however, that many of them may resemble the *Hindú Cheritrás*. The *Barmas* possess numerous smaller poems and songs, and even *natakis*, which may probably be derived from *Sanscrit* tradition, as the adventures of *RAMA* in *Lunka*, are favorite topics in their dramas. The following are some of the most popular works in the *Barma* language, and several of them, I find, exist equally in *Rukh-*

héng, Siamese and Malayu. Some of them are purely mythological, but others are *Cheritrás* of the historical class.

- | | |
|---|---|
| 1. Jina-Maṇa, | 20. Bhuridat, |
| 2. Nunda-Jina, | 21. Kinara-pyeu, or account of the celestial Kinara, |
| 3. Nundaguma, | 22. Malinméng Wut'hu, or history of Rajah Malin, |
| 4. Chundaguma, | 23. Jinaka, or history of Rajah Jinaka, denominated in Siamese Maha-Chinók, |
| 5. Narada, | 24. Yuwají, termed in Ruk'héng Ruari, |
| 6. Temi, | 25. Swipri-wéng-khan, |
| 7. Nemi, | 26. To-twéik k'han, |
| 8. D'hammapada, | 27. Munigungsala, |
| 9. Namagara, | 28. Anusasana, |
| 10. Logafara, | 29. Suan-nashan, |
| 11. Loganit'hi, | 30. Wit'hora, |
| 12. Maho-Sut'ha, | 31. Kagileinga, |
| 13. Wesundura, or story of Rajah Wesundara, | 32. Sada-syi'ch-chaung, |
| 14. Paramik'han, | 33. Anaga-atwéng, |
| 15. Chudongk'han, | 34. Ngarc-khan or description of Naraka, |
| 16. Bungk'han, | 35. Attagatt-lénga, |
| 17. Kado-k'han, | 36. Hmát-chew' bôn'g. |
| 18. Chatu Damasara, | |
| 19. Sangwara, termed in Siamese, the Sut'hon, | |

THE *Barma* language has some variety of pronunciation in the different provinces of that empire. The dialect of the *Yó*, situated on the east of the *Arakan* mountains, has been already noticed. The *Tanéng-sári*, or language of the inhabitants of the *Tanaserim* district, denominated *Tinnaw* by the *Siamese*, also differs considerably from the common *Barma*. The *Tanéngsári* certainly have many peculiarities of expression, and many words in common use, among them, are at present obsolete among the *Barmas* of *Ava*, but the majority of them are to be found in the *Barma* writings, and the *Tanéngsári* are therefore

reckoned to use an obsolete dialect, rather than a peculiar language. I have already mentioned in what respects the *Barma* and *Rukhêng* are related to each other. The following comparative list of terms will show more particularly the extent of their difference in current use,

	<i>Rukhêng.</i>	<i>Barma.</i>
Month	khanang	pijât
back	nau-kûng	naó
knee	pa-chhei'ch-tú	du
bone	aro	ayo
heart	alúng	na-towng
seeing	mrang-ré sú	myang-su-ha
smell	kaing-ré	chan-jan
touch	pait-té	feing-su-ha, thî
trouble	ma-ré	khék
strength	akrî	akyan
marriage	maya-ni-chá'p-té	lék-t'hat-gya,
life	ahrang	afyang
circle	apawk	akwéng
form	mukri	moscik
mail	mu-gyowk	mó-si
morning	mă-fowk-tha, nyí-ga	mă-neik,
evening	nya-ja	nya-né, né-é
sea	mreik	péng-lé
dust	mré-moh	amóng, myé-mong
mud	ta-mal	fuin
fire	míng	mí
length	hré	shi
ditch	mrourng	kewng
gold	hrui	sué
silver	mué	ngoé
horse	mrourng	miyin
fowl	krak	kyiuk
cock	krak-p'ha	kyiuk-t'hí
hen	krak-ma	kyiuk-ma
snake	mrui	myewé
tail	rowak	yewék

	<i>Tukl'ing.</i>	<i>Barma.</i>
bed	sáloing	kadeng
taylor	ang-gi-dap	khyowk-sama
white	aprí	pa ú
hard	kyang	n á
vegetable	haung sei'ch ruakk	hung-ewék
first	ayeng-á kha	{ ayeng-su-ha ayeng-da-ha
second	hnei'ch-khu-chowng	hnei'ch-khu-su-ha
I	akveweng-hma	kvewen-nou'p
we	akveweng-ro-hma	kvewen-do
thou	mong	méng
you	mong-ro	méng-do
he	yang-su	fu
they	yang-su-ro	su-do
this	dé-ga	di-ha
that	t'ho-ga	ho-ha
who	áfu	béú
what	jàma	baha
which	áfu	béú, béha
if	t'ho-shyang	hléang
though	la-lá't-hléukk	phyé'ch-hleang
about	le'khi-gra't-me	pát
many	akúng,	apóng
perhaps	kaing-ra-hya	kán-hné
yes	how't-payak	hou't-ké
no	ma-hí	ma-si
is	hí	fi
was	bri	pyi
has been	hi-yak	si-bi
I ought to do it	akveweng-louk-kowng-yak	kewen-nou'p-louk-gowng-dé
I will do it	akveweng-ro-hma louk-ra-ré	kewen-nou'p louk-ya-dé

THE *Barma* affects a more delicate, but at the same time inarticulate pronunciation than the *Rukh'ing*, and less conformable to the actual orthography of the language. This is particularly obvious in the conversion of *ra* into *ya* in *Barma*; but the *Rukh'ing* itself is not devoid of

its peculiarities, among which may be mentioned the conversion of *sha* into *ha*. Thus the word which is written *shré*, in both languages, is in *Barma* pronounced *syi*, and in *Rukhng* *hri*.

THE specimens which Dr. BUCHANAN has exhibited of the languages of the *Kariéng* or *Karayn*, as he writes it, and of the *Kiayn* (which seems to be the same word softened in the pronunciation;) the rude tribe which denominates itself *Kelún*, certainly show considerable analogy to exist between these dialects and the *Barma* proper. Some *Barma* words seem, likewise, to be discoverable, in the specimen he has given of the language of the *Moitay*, or inhabitants of *Kassay*, as *mee*, *fire*, *nga*, *fish*; and more copious and correct vocabularies, with a more exact orthography, would probably exhibit a more intimate connection; but a certain degree of acquaintance with the grammatical principles of every language, and with its alphabet and orthography, if a written one, is absolutely necessary to give any philological value to a specimen of its words. The inhabitants of the *Nikobar* islands are sometimes represented by those who have visited them, as speaking a language which is radically *Barma*, while, by others, it is reckoned *Malayu*. If FONTANA's short vocabulary (*Asiatick Researches*, Vol. III.) can be depended on, the *Nikobar* language seems to have very little connection with either the one or the other, as it does not appear to contain above two or three words which can with certainty be referred to either of them.

THE *Barma* language has been little cultivated by Europeans, excepting the Catholic Missionaries. The "*Alphabetum Barmannum*," digested by CARPANIUS, was published at Rome in 1776. CARPANIUS mentions, in his preliminary dissertation, that, at that period, a grammar and

vocabulary of the *Barma* language had been prepared by P. JON. MARIA PERBOTO, Bishop of *Méssola*, which seems never to have been published. In the preface to the same work, AMADUTIUS mentions, that the gospel of ST. MATTHEW, and the epistles of ST. PAUL, had been rendered into the *Barma* language, together with the "*Evangelia dierum omnium Dominicalium*," "*Epistola Dogmatica, et Dialogus inter Missionarium et Talapoinum*." P. PAULINUS, also mentions among the *Borgian* MSS. a dialogue between a savage *Khien* and an *Ex-Talapoin*, written in the *Italian* language by D. CAJETANUS MANTEGATIUS, the object of which is to expose the doctrine of the *Talapoins*, as contained in the books of the *Barmas*. *Khien* seems to be the name of the rude tribe termed *Khéng* by *Moslem* writers, and *Kiayn* by Dr. BUCHANAN; and the work itself, the translation of a composition circulated among the converted *Barmas* by the catholic missionaries. The *Talapoins* seem, however, to have retaliated on the missionaries; and Dr. FR. BUCHANAN has printed VINCENTIUS SANGERMANO's translation of "*A view of the Religion of GONAMA*," composed by ARULI ZARAGO, for the express purpose of converting the Christians, in which the *English, Dutch, Armenians*, and other nations are exhorted to adore GONAMA, the true GOD; to adore, also, his law and his priests, to be solicitous in the giving of alms, and in the observance of *Sila*, and in performing *Bavana*.

IX. MÔN.—The *Môn* language is still used by the original inhabitants of *Pegu*, who denominate themselves *Môn*, though by the *Barmas* they are termed *Talaing*, and, by the *Siamese*, *Ming-môn*. This language has never been cultivated by *Europeans*, and the only specimen of it, known to me, is that printed by Dr. FR. BUCHANAN, (*Asiatic Re-*

searches, Vol. V.) It seems to be quite original, and is said by the *Barmas* and *Siamese* to have no affinity with either of their languages. I have met no learned man of the race, nor have had any opportunity of cultivating the language, but I have been informed by a *Talapoin* that they possess many ancient histories in this language; which is not impossible, as they seem to have attained civilization, at a more early period than the *Barmas*; and, though now reduced, to have been formerly a great and potent nation. In the early *Portuguese* histories they are denominated the *Pundálús* of *Môn*; and they are supposed to have founded the ancient *Kilaminham* empire, at a very early period. The name *Kilaminham*, mentioned by the *Portuguese*, is probably connected with the *Siamese* name of the nation, *Ming-môn*. The *Môn* alphabet, if I can depend on the specimens of the character shown me by a *Barmin* of some learning, is only a slight variety of the *Barma-Bali*, with which it corresponds, in the power and arrangement, as well as the form of the characters. I have, however, had little opportunity of investigating this subject; and, expecting to have visited *Pegu*, did not avail myself of that opportunity to the fullest extent. The examination of the *Môn* character and language, has no peculiar difficulty, and may be easily accomplished by the first literary inquirer who may visit *Pegu*; and I still indulge the hope that my future inquiries may be attended with success in investigating their relations.

X. THAY.—The *Thay* language is that which is used by the *Siamese*, who, in their own tongue, assume this name as their national appellation. By the *Barmas*, they are denominated *Syan*, from whence the *Portuguese* seem to have borrowed their *Siam* and *Siam*, from whom

the other nations of *Europe* have adopted the term. LA LOUBERE, who visited *Siam* in 1687-8, as Envoy Extraordinary from the *French* monarch, has given incomparably the most accurate account, that has ever been exhibited, of this nation, formerly reckoned the most polished of eastern *India*. He divides them into two races, the *Tai* and the *Tai Yai*. The latter nation, he adds, are reckoned savages, though the most ancient. Their name signifies literally *the great Tai*, and in order to distinguish themselves from this nation, the ruling race, in modern *Siam*, assume the name of *Tai-noë*, *the little Tai*. Dr. FR. BUCHANAN, however, on the authority of the information he received in the *Barma* dominions, divides the *Siamese* race into many states; and gives a specimen of the vocables of three dialects. This brief vocabulary, with LA LOUBERE's observations on the *Siamese* language, and "*The maxims of the Talapoins*," translated out of *Siamese* by the catholic missionaries, which he has published in his "*Historical Relation of the Kingdom of Siam*," constitute all that has been published, respecting the language or literature of this nation, in any *European* tongue. The result of my own inquiries certainly coincides more directly with LA LOUBERE's information, than with that received, by Dr. FR. BUCHANAN. All the intelligent *Siamese*, whom I have met, and among these, there were *Talapoins*, both of the *Tai* and the *Tai-yai* race, agree in asserting, that the *Siamese* nation, properly so called, consists of two tribes, the *T'hay* and the *T'hay j'hay*, for so the names are properly written. Of these the most ancient are the *T'hay-j'hay*, formerly famous for their learning, and the power of their empire. It is added, that many monuments of this ancient race exist in the kingdom of *Siam*; and I was informed, in particular, that in the vicinity of

Ligór, about five days journey from *Trang*, there are various ancient inscriptions, on stone, among the ruins of a very ancient temple, which are attributed to the *T'hay-j'hay*, but which no person among the modern *T'hay* is able to decypher. The *T'hay* language, or *Siamese*, as it is written by these two races, does not differ essentially; but the spoken dialect among the *T'hay-j'hay*, is much more strongly accented, than among the *T'hay* proper, or the present ruling race of *Siam*. The *T'hay-j'hay* inhabit the country between the *Me-nam* and the *Me-kon*, or river of *Cambodia*; but the *T'hay*, for the most part, inhabit on the west of the *Me-nam*, or between that river and the frontiers of the *Tinnaw*, *Môn*, and *Barma* nations. As to the *Tai-loong*, of whose vocabulary Dr. BUCHANAN has given a specimen, all the *Siamese* that I have met, though they admit that a district is denominated by this appellation, unanimously deny, that there is either a race of men, or a dialect of the language, which bears this name. The words themselves, which Dr. FR. BUCHANAN adduces, as specimens either of the *Tai loong* or the *Tai-yay*, are pure *T'hay*, whenever they are not auricular corruptions of pronunciation, or words of different meaning, introduced, apparently, by the interpreter's misapprehension of the sense required to be expressed. Having myself been frequently exposed to similar misapprehensions, and knowing, from experience, the difficulty of avoiding it, especially in languages, in which not only the signification varies, with such delicate shades of pronunciation, as are almost undistinguishable to an *European* ear, but the train of ideas themselves, is regulated by such a subtle, and as it were hieroglyphical set of principles, I am far from insinuating any carelessness in Dr. FR. BUCHANAN, whose comparative vocabulary is the first attempt to

classify these languages; but I am attempting to account for the mistakes, into which he seems to have been inevitably led, by the misapprehension of his interpreters. Thus, *moo* signifies *the hand*, in *T'hay*, and *paw-moo*, which he exhibits as the *Tai loong* variation, is only *Fà-mú*, *the palm of the hand*, in the proper language: *Kén*, which he writes *kayn*, signifies *the arm*, in *T'hay* or *Siamese* proper, and in the same language, *komooee*, which he gives as the *Tai yay* synonyme, signifies *the lower part of the arm*, from the elbow to the wrist, and *moo*, the *Tai loong* synonyme, signifies *the hand*; *Tin*, signifies *the leg*, in *Siamese*; but *naung*, which he gives as the *Tai-nay*, signifies *the skin*; and *koteen*, the *Tai-yay* synonyme, *the joints of the leg*; in the same manner *langteen*, which he gives as the *Tai-nay*, or common *Siamese*, for *foot*, signifies literally *the upper part of the foot*; and *Swateen*, the *Tai-yay* synonyme, appears to be a mispronunciation of *Fatín*, *the under part of the foot*. *Sätt* signifies a *beast*, or animal, and *nook*, the *Tai-yay* synonyme, is only a mispronunciation of *nók*, a *bird*, as are *noup* and *naut*, the *Tai-nay* and *Tai yay* words, which are given to signify a *bird*; *Pawk* signifies *the mouth*, but *tsop*, given as the *Tai-yay* synonyme, is a mispronunciation of *tsot*, *to drink*; *San* signifies *short*, but *lot*, the *Tai-yay* synonyme, signifies *child*, and *unlot*, the *Tai loong* synonyme, *one child*; *yoon* signifies *to stand*, but *lost-sook*, the *Tai-yay* synonyme mispronounced, signifies *to rise up*; and *Peinung*, the *Tai loong* synonyme, *go sit*; *seeza*, *the head*, is not *Siamese*, but *Bali*, and the *Tai-yay* synonyme *ho*, and the *Tai-loong*, *hoo*, are only mispronunciations of the proper *T'hay* term *huá*. It may be proper also to observe here, that Dr. FR. BUCHANAN has printed *Tai-nay* instead of the *Tai-noe* of LA LOUBERE, which signifies *little Siamese*; whereas *Tai-nay* cannot possibly sig-

nify *little Siamese*, but only *chief Siamese*; the true meaning of *nay*, being *chief* or *head*. It is a term of similar import with *nayen*, *nayer* and *nayenmar*, used in *Malabar*, as the appellation of the military cast, or *naya-ha*, in *Sanscrit*.

THE *Thay* or *Siamese* language appears to be in a great measure original; and is more purely monosyllabic, and more powerfully accented, than any of the *Indo-Chinese* languages, already mentioned. It certainly is connected, in some degree, with some of the *Chinese* dialects; especially the *Mandarin*, or *Court language*, with which its numerals, as well as some other terms, coincide, but these are not very numerous. It borrows words freely from the *Balti*, but contracts and disguises more, the terms which it adopts, than either the *Ruk'héng* or the *Barma*. In its finely modulated intonations of sound, in its expression of the rank of the speaker, by the simple pronouns, which he uses, in the copiousness of the language of civility, and the mode of expressing esteem and adulation, this language resembles the *Chinese* dialects, with which also, it coincides more nearly in construction than either *Barma* or *Ruk'héng*. Its construction is simple and inartificial, depending almost solely on the principle of juxtaposition. Relative pronouns are not in the language; the nominative regularly precedes the verb, and the verb precedes the case which it governs. When two substantives come together, the last of them is for the most part supposed to be in the genitive. This idiom is consonant to the *Malayn*, though not to the *Barma* or *Ruk'héng*, in which, as in *English*, the first substantive has a possessive signification. Thus, the phrase, "*a man's head*," is expressed in *Barma* and *Ruk'héng*, by *lu-k'haung*, which is literally *man-head*; but, in *Siamese*,

it is *kü-khon*, and in *Malayu. kapala orang*, both of which are literally *head-man*. A similar difference occurs in the position of the accusative with an active verb, which case, in *Barma* and *Malayu*, generally precedes the verb, as *tummaing chá*, literally *rice eat*; but in *Siamese* follows it, as *kén káw*, literally *eat rice*, which corresponds to the *Malayu makan-nan*. The adjective generally follows the substantive, and the adverb the word which it modifies, whether adjective or verb. Whenever the name of an animal, and in general, when that of a species or class, is mentioned, the generic, or more general name of the genus to which it belongs, is repeated with it, as often happens in the other monosyllabic languages, as well as in *Malayu*. In the position of the adverbial particle, the *Malayu* often differs from the *Siamese*; as *Mana pargi*, literally *where go*, but, in *Siamese, pai hñi*, *go where*. The *Siamese* composition is also, like that of the *Barma*, a species of measured prose, regulated solely by the accent, and the parallelism of the members of the sentence; but, in the recitative, the *Siamese* approaches more nearly to the *Chinese* mode of recitation, and becomes a kind of chaunt, which different *Brahmins* have assured me is very similar to the mode of chaunting the *Sama-veda*.

THE *T'hay* coincides occasionally, even in simple terms; both with the *Barma* and *Malayu*; but these terms bear so small a proportion to the mass of the language, that they seem rather the effect of accident or mixture, than of original connection. The following are some of these coincidences which present themselves spontaneously.

	<i>T'hay</i>	<i>Burma</i>		<i>T'hay</i>	<i>Malaya</i>
river,	klong,	kyóng or krong,	I,	ku,	aku, and ku,
elephant,	chang,	ch'heng,	this,	ni,	ini,
cow,	lūei,	lúa,	that,	nuna,	inún,
finger,	nyew,	nyo,	lock,	kaché,	kunchi,
to,	ka,	ga,	dagger,	krít,	krís,
self,	éng,	éng,	open,	bùk,	búka,
			to,	ka,	ka,
			come,	ma,	mari.

THE *T'hay* or *Siamese* alphabet, differs considerably in the power of its characters from the *Báli*; though it not only has a general resemblance to it, in point of form, but also in the arrangement of the character. The vowels, which are twenty in number, are not represented by separate characters, but by the character corresponding to the short *akar*, variously accented; excepting the vocalic *ru* and *lu*, which are only variations of the *r* and *l* consonants. The consonants are thirty-seven in number, and are not arranged by the series of five, like the *Devanagari* and *Bali*, but the first series *ka*, consists of seven letters; the second series, *cha*, of six; the third series, *ta* or *da*, of six; the fourth series, *ba* or *pa*, of eight; the fifth series, *ma*, of four; and the last series, *sa*, of six, including the vocalic *akar*, though two of them are not in common use. Each of these letters is varied by sixteen simple accentuations, and by thirty-six complex ones. The letters *ka*, *nga*, *ta* or *da*, *na*, *ma*, *ba* or *pa*, are also final consonants. Hence it is easy to perceive the near approximation of the *Siamese* to the delicacy of the *Chinese* accentuation; while in other respects, the alphabet is considerably more perfect, than in the *Mandarin* or *Court language* of the *Chinese*, which has neither the same variety of consonants, nor admits so many, in the close of a syllable. The *Siamese* pronunciation, even of consonants, corresponds very

imperfectly to the *European* mode: *r* and *l* are generally pronounced *n*, in the close of a syllable; *h* is often prefixed to a consonant, but from the total suspension of voice, in pronouncing syllables which terminate in a consonant, no aspiration can be pronounced after them; *ma*, and *ba*, *tya*, and *chya*, are often difficult to be distinguished in pronunciation, as are *ya*, and *ja*, *kyé* and *chyé*, with other combinations. From this circumstance, many combinations of letters are pronounced in a manner somewhat different from that in which they are written.

THE first *European* who attempted the study of *Siamese* literature, was the learned GERVAISE, but his lucubrations have never been published. The learned and indefatigable HYDE procured from the *Siamese* ambassador at *London*, an imperfect copy of the *Siamese* alphabet, which has been published by GREG. SHARPE, in the "*Syntagma Dissertationum*," 1767. It is inferior to LA LOUBERE's alphabet in accuracy, though it contains a greater number of compound characters. LA LOUBERE's alphabet contains three forms of the *sa*, corresponding to the *Nagari*; but the *shu* and *sh'ha* being disused in common pronunciation, are commonly omitted both in the alphabet and in modern MSS.

THE *Siamese* or *T'hay* language contains a great variety of compositions of every species. Their poems and songs are very numerous, as are their *Cheritrás*, or historical and mythological fables. Many of the *Siamese* princes have been celebrated for their poetical powers, and several of their historical and moral compositions, are still preserved. In all their compositions, they either affect a plain, simple narrative, or an

unconnected and abrupt style of short, pithy sentences, of much meaning. Their books of medicine are reckoned of considerable antiquity. Both in science and poetry, those who affect learning and elegance of composition, sprinkle their style copiously with *Bali*. The laws of *Siam* are celebrated all over the east, and LA LOUBERE has mentioned three works of superior reputation. the *Pra-Tam-non*, the *Pra-Tam-Ra* and the *Pra-Raja-Kam-manot*. Of these, the first is a collection of the institutions of the ancient kings of *Siam*; the second is the constitutional code of the kingdom, and contains the names, functions and prerogatives of all the officers; the third, which is about 150 years old, contains additional regulations. Of these, the first is the most celebrated and the most deserving the attention of *Europeans*.

THE *Siamese* histories of the *T'hay* dynasty, detail with much minuteness, and great exaggeration, the events which have occurred in *Siam*, and the adjacent states and countries, during the last 1000 years. It also details the events of 400 years, previous to that period, with less precision, from the building of the city *Maha Nakhon*. The records, however, of the *T'hay J'hay* dynasty are supposed still to exist; and perhaps, it may yet be possible to glean a few grains of pure *historical* gold from the sands which glitter in the long vallies of the *Mekong* and *Me-kon*.

THE *Cheritras*, or romantic fictions of the *Siamese*, are very numerous, and the personages introduced, with the exception of *RAMA* and the characters of the *Ramayana*, have seldom much similarity to those of the *Brahmens*. The following are some of the most popular among the

T'bay, several of which contain the same stories and incidents as those which are current among the *Rukhéng*, *Barma* and *Malayu* nations.

- | | |
|-----------------------|---------------------|
| 1 Rá-ná-kién, | 22 Prang-t'hong, |
| 2 Rá-lín, | 23 Nang-síp-fong, |
| 3 Sum-mut-ta-kó-dóm, | 24 Raniá, |
| 4 Wét-jǎfun-dón, | 25 Chumpá-t'hong, |
| 5 Worawóng, | 26 Lúk-sūa-ko, |
| 6 Un-narút, | 27 P'hini-fwan, |
| 7 Mahó-lot, | 28 Pǎja-p'hali, |
| 8 Méiǎy, | 29 T'hàw-krúng-fón, |
| 9 Chátri | 30 Khun-p'hen, |
| 10 Chalǎwán, | 31 Trei-wóng, |
| 11 P'húm-húm, | 32 Chin-narat, |
| 12 Pra-thóm, | 33 P'howit'hát, |
| 13 Su-t'hon, | 34 Su-t'hin, |
| 14 Pok'ha-wǎd-dí, | 35 Hǒi-fang |
| 15 Téng-ón, | 36 Sang-sin-chay, |
| 16 Lín-t'hóng, | 37 Woranút, |
| 17 Nok-k'hum, | 38 Chitra-kán, |
| 18 P'ha-non-son-pǎjá, | 39 Nang-ut'hay, |
| 19 MaK-kali-p'hon, | 40 Mahá Chinók, |
| 20 Súm-p'han-sit, | 41 Miék-t'hòng. |
| 21 Sūan-na-hong, | |

IN the general characteristics of style and manner, these *Cheritras* resemble those of the *Rukhéng*, *Barma* and *Malayu* tribes, and exhibit the peculiar manners of the *Indo-Chinese* nations, as well as the peculiar features of their mythology. The *Rama-kien* seems to be a *Siamese* version of the *Ramayan*, and relates the adventures of PRA'M or PRA RAM, and his brother PRA-LA'K or LAKSHMANA, and their wars with TOT-SÁ-KAN or DUSHA-KANT'HA, (which is one of the names of RAVANA,) who carried off NANG SE'DA or SI'TA. This narrative corresponds, as far as I have been able to learn, with the *Sanscrit* poem, and almost

all its incidents have been converted into *Natakas* for representation by the *Siamse*, in the same manner as the *Barmas* have employed the incidents of the *Yam-méng* or *Barm Ramyan*. *Rádín* is the *Siamese* translation of a *Javanese* story. *Sum-mut-ta ko-dom* is the history of *SOMONAKODOM*, abridged from the *Bali*. The *Wet-jă-sun-dón* is the history of a *Rajah* who becomes an ascetic of the forest, being struck with a fit of devotion at the sight of a withered mango-tree, as he was walking in his garden. *Worawóng* is the history of an unfortunate *Rajah*, who fell in love with a lady, and was slain by an enchanted spear which guarded her, one night as he was escalading the window of his mistress. This is also a subject of dramatic representation. *Mahó sôt* contains the wais of *MAHA-SOT* with *CHOR-NI*, and is the same as the *Barma Maho-Sut'há*. *Un narat*, narrates the story of *ANI'RUD'HA*, the grand son of *KRISHNA*. *Mul'v* relates the benefits of *MALĀY*, the being whose office is to relieve the torments of *Naraka*. *Chalăwán* contains the history of a destructive alligator, who falls in love with a princess, whom he carries off to his recess in the ocean, and the account of her rescue. *Phím-hóm* is the history of another princess of whom an elephant was enamoured, and her rescue. *Prat'hom* is a mythological account of the origin of the universe, according to the principles of the *Budd'hist* sect. *Nok-khúm* is the mythological account of the celebrated *HAMSA*. *Pokha-wad dī* is the history of *BHAGAVATI*. *P'ha-nón-són-paja*, contains the instructions of the sagacious ape '*P'ha-non*'. The *Mak-kali-phín*, the adventures of the son of a chief, who possessed a wonderful cow, resembling the Sanscrit *Kamad'henu*. *Sám-phan-sít*, a book of moral instructions. *Prang-thong* relates the adventures of the persons who

went to the land of the *Rakshasas* in search of the fruit *Prang t'hong*, for which a certain princess had longed when pregnant, the obtaining of the fruit on condition that the child of which the princess was pregnant, should be presented to the *Rakshasa*, the carrying off of the child by the *Rakshasa*, and her return to her parents when grown up. The *Lúk-sū-kó* relates the friendship between the tiger and the bull, and their being afterwards metamorphosed into men by a certain *Rishi*. *Paja-p'hali* relates the adventures of *VALI*, the brother of *SUGRIVA*. The *Hōi Sang* relates the adventures of the prince who was born in a chank shell, and remained in it till he arrived at maturity. The *Sang-sin-chay* is the account of a hero who was born with a chank and an arrow in his hand, with which, and mounted on a lion, he accomplished many adventures among the *Rakshasas* and *Girgásis*, *Yakshas* or *Yák*, as they are termed by the *Siamese*. The *W'oranút* relates the adventures of the twin brothers *WORANU'T* and *WORANE'T*. *Nang ūihy* relates the adventures of a *Naga* princess, who was carried off by a *Rajah*. Some of these fictions exhibit a wild and singular style of fabling, with which we are little acquainted, but the greater part are obviously derived from the *Sanscrit*, through the *Bali*.

THE *T'hay* exhibits considerable variety of measures, in composition, and frequently introduces several of them in the same work, in the same manner as is frequently done in *Brij'h*, *Punjabi* and *Sik'h* compositions. The most frequent measure, however, among the *T'hay*, as among the *Ruk'hing* and *Barma*, seems to be that denominated *ráp*, which consists of four long syllables, but admits occasionally of one or more intercalary short ones: the *Já-ni* which consists of five syllables, the *Chó*.

bang of six, the *Pat'hamang* of seven, the *Jésuntá* of eight, are also frequently employed.

THE following specimen of *T'hay*, is taken from the beginning of the *Mahá Chinók*, a work in which the greater part of these are introduced.

DESCRIPTION OF MAIT'HILA.

Jang mi múung núng	Lok'ha-ma k'hài
Jay kwàng trāhúng	Wanit t'hang lài
Chu Mít t'hín lá	Chai rŭa pai ma
T'haw p'hu suwoi rât	Bo mi satru
Krop krong para	Biblin prachá
Song nām maha	Prat'het naná
Chinok p'homí	Jom ma thuk múung
Som det p'homí	Chun, Cham, Pram, Láu
Krong se narát	Ming-môn, Tin-náu
Pin chá nan ma	Map mai nong núung
Bo mi an arái	P'hŭrang phang-ka
Ké rat pracha	Ma kha t'húk múung
T'haw krong para	Khek môn nong núung
Pin cháv p'hen din	Ma múung ka kai
K'haw māk plá-t'hok	Kúla P'hrang-sét
Bomi p'hai rók	Chín Cham Pram-T'héi
Biblin p'ho min	Chong lakk Naláy
Pinlúk kă priām pri	Jipún Chinhó
Múung Pra Narin	Aw sŭn ma k'hái
T'haw krong p'hen din	Ni nún lúă lay
Súkă fém pră chá	

" There was a certain country, powerful and of great extent, termed *Mithinla* (*Mait hila*.)" In this country a certain Rajah exercised the sovereign authority, named MAHA CHINOK, (JANAKA) overshadowing his people like the spreading banian tree. For a long series of years, he ruled this country, while none was able to injure it, or subject it to foreign authority. Rice was abundant, and of a cheap price: no disease prevailed, and no discontent against the sovereign, and the inhabitants enjoyed every pleasure, as in the region of *Pra-Narayan*. The sovereign of the country diffused joy over the face of the land, among the natives, while merchants resorted thither in

fleets of ships, constantly going and coming; and as there was no disturbance in the land, the inhabitants of every country frequented it; the *Chin*, (*Chinese*) the *Chám* (*the Tartars*), the *Pram*, (*Bramhins*) the *Ming-Môn*, (*Môn of Pegu*) the *Indaw*, (*Barmas of Tenasserim*) all of them, in innumerable multitudes: also the *Franks of Europe* came thither to traffic; the *Khék*, (*Malays*) the *Kûla*, (*Chulias*) the *Phrangset* (*French*) the *Pram-l'hét*, (*Kelings or Hindús of Kalinga*) the *Chong-sakk* and *Na-Lay*, (*Caffree tribes, with stained skins and tattooed faces*), the *Jipun*, (*Japanese*) and the *Chinbo*, (*Tonkinese*) resorted thither with goods, to buy and sell, constantly in great multitudes."

THE MAHA CHINOK of the *Siamese*, seems to be a popular account of Raja JANAKA, of *Mait'hila*, derived from the *Ramayan*; but it is evident, if the text can be considered as correct, that the work has been either interpolated or modernized, from the mention of the *Franks* and the *French*.

THE following specimens of *Rukhéng* and *Barma*, will indicate the similarity of style and measure which prevails in all the monosyllabic languages.

THE specimen of the *Rukhéng* is taken from the *Nga-chaing-braing*:

THE BIRTH OF GAUTAMA.

O-lé lé sangkhyé hna
Kaing b'ha ta saing
Two'k kyíng tsúng bowng
Pri bri syowng-hma,
Párá tzú gó
Lo rui towng thi
Alúng sú mré'p
Syang Theik-d'hat ga
Né hmát pro ra
Dowk thi da hnei'ch
Khyaing fa sukha
Tzaing lé fa dé

O tzeng lé bri só
Dewa nát-tzei'ch
Ahnei'ch mroung krá
Tzaing bri chwa hma
Sei'ch-tza lé ba
Tará tzu si
Pri kha-ni-wé
Pri gri fa hla
Ka pila hnei'ch
Khrei'ch pha Thowk tó
Médp boung hi
Siri maha

Maya waing t'hé
 Amri thaing d'hé
 Tsūwé lé ti
 O thaing dé tsūwé bri
 Mré gri kreit krak
 Aup t'hak akowng
 Eet lat towng é
 O thaing dé tsūwé t'ha
 T'sé la waing hneik
 Paik towng bri tho
 Piang é nan hmon
 Ahlueng tu pró
 Angarang to hneik
 Mi tso maya
 Uyein fa go,
 Lé la tan di
 O lé lát bri fo

U yéng t'hé doang
 Ko wat krang rué
 Pra jang ron mra
 Ni ma hla ni
 Gotami hna
 Mā pri rat léit
 Lé krang shéat ruwé
 Prang thak hnan moang
 Ahlueng tu pró
 Angarang to hneik
 Mi tso maya
 Tháing khāngewéh khak
 Káing hléāk lék t'uwé
 Amré rat né
 Thowng lu chwa go
 Phwa hléang lé i.

WHEN one hundred thousand revolutions of the world were completed, each occupying four *Sankhyas*, then the devout worshipper obtained the object of earnest desire; and the sublime THIK D'HAT, (SIDD'HART'HA) who is acquainted with the secrets of futurity, obtained supreme felicity, tranquillity devoid of care, and self absorption. After the pure DEVA NAT'HA had passed numerous ages in the possession of preme felicity, meditating on the four laws of truth, when the period of the divine favor was nearly completed; in the excellent and populous region of *Kapila*, SUK-TÓ (SÜDD'HÓ-DANA) became his beloved father, and SRI MAHA MAYA, his venerable mother, became pregnant of a perfect conception. When this conception took place, the strong earth was agitated upwards and downwards, trembling and shaking. After ten months pregnancy, supporting her swelling womb with her hand, his mother MAYA was walking for recreation in a deep forest of *Angarang* trees, diffusing around an exquisite odour. Walking up and down in a pleasant garden, reciting the divine names on her rosary, and radiating in brilliant beauty, and accompanied by two younger sisters of the same complexion, unable any longer to support the burden of GOTAMA (GAUTAMA,) she leaned on the shoulders of her two younger sisters. Within a deep forest, in a grove of *Angarang* trees, which diffused around an exquisite odour, his mother MAYA, firmly grasping the branches with her hands, and standing erect on her feet, brought forth the deity GOTAMA.

THEIK-DHAT. or **THÍK-DHAT**, is the *Barma* mode of pronouncing **SIDDHARTHA**, as it is written, which is the *Bali* corruption of **SIDD'HAR-THA**. According to this analogy, **BUDD'HA** is pronounced **BU'GDA**, and **SUDD'HO**, the contraction of **SÙDD'HODANA**, **SUK-TO** and sometimes **SUG-DO**.

THE following specimen of *Barma* verse is taken from the *Chatu Dhamasara*, as it is termed in *Pali*, which is denominated the *Ko-Khán* in *Barma*.

DESCRIPTION OF VARANASI.

Baranafi
 Pyi gyi pyi hu .
 Kyó-níy lú-bó .
 We-niy kofi .
 Năgo k'haing-gaing .
 Hwún hwún di
 Baranafi
 Chông ji pyo wa
 T'ho pyi ma hneik
 Dana-ma-mé
 Chawng lé sadéng
 Meng i tang khúln
 Chúln gyé han li
 Khyiuk suin pyo byo
 Hna myo mé hlyéang
 Hmya hné chéng éwé
 Wan dúéng p'hyong tan
 Makouk yáfn di
 Ta khúln ha ga
 Hnei'ch kwa mafwé
 Myew chwé khyé'ch so
 Húléng kacha
 Hloup shya maneyng
 Kyan k'heng myé chông

Ti di sáw cwé
 Hné lóng mākyan
 Kyéng-tian mwé nyek
 Myék sék niba
 Peng ga nong t'hek
 Hní'ch chek mūshfa
 Khan khi si nyín .
 P'hyeang bó pyo t'hu
 Lú ahwon hné
 Machan kyéang hmu
 Leik hléo pyew fa
 Ché khu hneik chán
 Raja t'han düéng
 Ta éng makhyo
 Kyé, ju dq gyowng
 Sépo pyéng gyéwin
 Myet lé thuín só
 Ku-fan hlé deik
 Pyiuk la so kha
 Ko gwé ya hlien
 Hman chua chéng chei'ch
 P'hyeit pé so la
 Néng ngan fa-do
 Myo ba ché yú

Chéng jé hu-fa
 Yé tu khyan p'hyeng
 Tóng lé khyéng hma
 Pyowk.keng ché khyéng
 Bowng mi kéng ewé
 Mwól shéang lan-owng
 Sín myan chông fi
 Swé tawng nan püéng
 Cho yan hlaeng ga
 Meik myiang ko yo
 Sivé khi ko fa

Mito ketu
 Hmat takhu phyéng
 Esukari
 Kyo hlueng nyi hliép
 B'hông cheit ta hmu
 Khát sin lu-do
 Up'hyu u nék
 Sowng teik tweek fi
 Hwan teik pyi byi
 Hlyéan hlyéan di

BARANASI (*Benares*) was a beautiful and extensive region, inhabited by a race superior to every other, whether far or near, living fortunate and happy. *Baranasi* was, in every respect, an admirable country, possessing every thing desirable; for in that kingdom, prevailed the practice of charitable donation, and the performance of ascetic duties. So generous was the heart of the Rajah, that he gave, in charitable donations, the whole amount of his revenue. Devoid of every selfish desire, his mind was onefold, like the point of an arrow. Free from evil inclination, onefold and not double in his speech. Affectionate to all his relations, and beloved of them, remaining firm as a massy roof-beam, no one could prevent or shake his purpose; never deviating from veracity, undivided in heart, excellent in his whole conduct, and his heart devoid of angry passion. Under his sway existed no violence, restraining the desire of his own eyes. Such was his universal character.

PERFORMING no wicked action, and rendering all his people happy, he neglected none of the ten commandments in the practice of general benevolence. Like a bank of sand, which rises up into an island far at sea, and when the passing ships are wrecked, affording a sure and safe refuge to the mariner. Thus it was that he aided his subjects, who were sinking overwhelmed in misfortune; and thus those who were shivering under the chilling cold, (of distress) were revived by approaching the genial flame of authority. Like the motion of a serpent, cautious in his conduct. His palace was splendid as a mountain of gold; in his presence no enemy durst present himself. **SIVAKARA KASA MITRA KETU**, with his mind fixed on one object, **YESUKARI** far celebrated; such was his regal state, that the whole human race, whether white or black, in ten thousand regions, lived in joy and happiness under his sway.

It is difficult to determine, from the *Barma* text, the true name of this sovereign of *Benares*; but several names, in some degree similar, as

MITREYA and *KETUMAT*, occur in a *Pauranic* list of the *Rajas* of *Ben-gal*, included from *DIVODASA*, which was pointed out to me by Mr. *COLEBROOKE*, of whose notices I have frequently had occasion to avail myself.

XI. *K'HÔHME'N*.—The *K'hôhmén* language is used by a nation of that name, who reside on the *Mé-kón*, or river of *Kam-bú-chá't* or *Camboja*. It has never been cultivated by *Europeans*, and I have had no opportunity of examining it. The *Siamese*, from whom I received my information, assured me that it was entirely different from either the *T'hay* or the *Júan*, or language of *Cochin China*. The *K'hôhmén* are reckoned an ancient and learned people; and were formerly introduced by the *T'hay-jhay*, or ancient *Siamese* race. The modern *T'hay*, or *Siamese*, still denominate the *Bali* character, *Nangsu Khóm*, or the *K'hôhmén* letter, from this nation. They are not, however, supposed to have existed as a polished nation so early as the *Láw*, but are believed to derive their origin from the warlike race of mountaineers named *Khó*, the *Gucos* of the early *Portuguese* historians, who are still represented, as practising their ancient customs, of eating human flesh, and painting and tattooing their bodies. *DE BARROS*, however, seems to represent the language of the *K'hôhmén* as different from that of *Camboja*, though the *Siamese* do not distinguish them. "There are two kingdoms" says he, "adjacent to each other, and both of them maritime, which have each a peculiar language; the first is termed *Como*, and the second, *Camboja*." (*Decad*, iii. lib. 2. c. 5.)

XII. *LÁW*.—The *Láw* language is used by the inland nation of that name, who are generally termed, after the *Portuguese* writers, *Láo*,

and, in the plural, *Láas*; from their consisting of different races. Their language, DE BARROS observes, is peculiar, and that he asserts that it is different from the *T'hay*. It has never been cultivated by Europeans, very few of whom, besides ALEXANDER DE RHODES, have ever visited the country. According to KEMPTER, (History of Japan, p. 26,) the *Láu* nation do not differ much from the Siamese, either in language, or writing, except that they are unable to pronounce the letters *l* and *r*; and this opinion I am much inclined to adopt, though I have had no favourable opportunity of investigating the subject. If, however, I may be allowed to judge from the specimens of the *Láu* language, which I have been able to procure from Siamese and *Barmas*, it appears to bear the same relation to the *T'hay* or Siamese, that the *Ruk'héng* does to the *Barma*. With the *T'hay-j'hay* it accords more fully than with the *T'hay* proper; and, in adopting *Pali* terms, it adheres more accurately to the *Pali* orthography than either of them. The following short list of words and phrases will convey some idea of the difference which subsists between the *T'hay* and the *Láu*. As the *T'hay-j'hay* approaches the *Láu* more nearly than the *T'hay*, when that dialect uses peculiar terms, I have preferred adducing them, for the sake of comparison. Where the *Láu* and the *T'hay* agree in the radical, an apparent diversity is often produced by the conversion of the *l* and *r* into *h* or *d*.

	<i>Láu.</i>	<i>T'hay.</i>
call,	<i>hông,</i>	<i>riukk,</i>
talk,	<i>tú,</i>	<i>phút,</i>
warm,	<i>hón,</i>	<i>ron,</i>
very warm,	<i>hón ala,</i>	<i>ron uk,</i>

	<i>Lâw</i>	<i>T'hay</i>
no, know	bo-hu,	mai-cy,
many,	cháu haq,	nai hén rú,
sea,	meng,	mák,
wave,	mé-fámút,	thá-lé,
river,	fông,	klún,
number,	không,	klóng,
gold,	ân,	rap,
lead,	khăm,	thông-kham, thông
do,	tông,	tákua,
book,	pung, 𣎵,	t'ham, jín,
matchlock,	pap,	sabút,
far off,	sénat,	pùn,
handsome,	kli,	hié,
weary,	lau,	p'ham,
hated,	ít,	núcy,
sing,	chă,	kléit,
grieve,	ép,	khap,
give,	hái,	rong,
approach,	hún,	hũj,
market,	hôt,	thùng,
fruit,	kát,	tá-lát,
fish,	tút,	ápít,
blood,	chín,	qũ,
fight,	huit,	lùit,
craft,	hop,	róp,
stand,	khilái,	kuang,
lamp,	hũn,	jũn,
how is it done?	kát'hip,	tá-t'hang,
how many?	peng jang hũd,	t'ham jang arai,
moon,	táu dai,	taw rai,
woman,	p'ha chan,	prá-chan,
man,	má jing,	pu-jing,
country,	pho-chay,	phu-chay,
house,	vyung,	thuang,
who,	hũn,	xũn,
what,	phai,	krai, or
go there,	basandé,	arai,
	pai-pún,	pai-pún,

	<i>Láw</i>	<i>T'hay.</i>
come here,	mà-phé,	ma-ni,
fort,	tapp,	k'hái,
elder brother,	ay,	pi-pach-ay,
elder sister,	ûci,	pi-pu-jing,
mother,	jmé,	mé,
I,	ku,	k'hà,
I (honorific)	kha,	di-chan,
we,	hów,	râu.

It is from this nation that both *Siamese* and *Barmas* allege that they derive their religion, laws and institutions. It is in the country of *Láw* that all the celebrated founders of the religion of BUDD'HA are represented to have left their most remarkable vestiges. *Ceylon* boasts the sacred traces of the left foot of BUDD'HA on the top of the mountain *Amāla-Srispadi*, or *Adam's Peak*. *Siam* exhibits the traces of the right foot, on the top of the golden mountain *Swa-na-bapato*. Other traces of the sacred steps are sparingly scattered over *Pegu*, *Ava* and *Arakan*; but it is among the *Láos*, that all the vestiges of the founders of this religion seem to be concentrated, and whither devotees repair to worship at the traces of the sacred steps of *Pra-Ku-ku sôn*; *Pra-Kôn-nă-kôn*, *Pra-Put-t'ha-Kat-sop* and *Pra-Sa-mút-ta-ko-dom*. These *Siamese* names of the four BUDD'HAS seem to correspond to the *Barma* KAUKASAN, GONAGOM, KASYAPA and GOTAMA, the *Singhala*, KAKUSAN'DA, KONAGAM, KASYAPA and GAUTAMA. There can be no doubt, however, from the order of the names, but that they are the four last BUDD'HAS in the list given by HEMACHANDRA ĀCHĀRYA in the *Abhid'hana Chintāmeni*, under the following Sanscrit appellations, from which all these *Siamese*, *Barma* and *Sing'hala* names, seem to be only *Balt* corruptions. The Sanscrit names are *Krukruch'hunda*, *Kan-*

chana, *Káryapa* and *Sakyaśmha*. The language of *Láw* is represented as abounding in books, especially translations from the *Budd*; and if the antiquity of the nation can be depended on, they must be extremely interesting, from the situation of the country between *China* and the other *Indo-Chinese* nations. The *Láw* nation consists, like the *Siamese*, of two different races of people, denominated, in *Siamese*, *Chóng-midi* and *Lan-chang*, which are said, by KÖMPFER, "to be the names of their chief cities. The first of these are termed, by the *Barimas*, *Yún*, and the second, *Lain-sam*. DE BARROS adds a third tribe, which he denominates *Chan cray*. In their general appearance the *Láw* resemble the *Món*.

XIII. ANAM.—The *Anám* language is that of *Cochin-China* and *Tonkin*. It is represented by the catholic missionaries to be, likewise, generally used in *Champa* and *Kau-bang*; but their assertions must be taken with some limitation when they add, *Láw*, *Cambója* and *Siam*. The *Anam* language, as well as the nation, is often denominated the *Júan*, by the *Malays* and *Siamese*. It has always been more cultivated by the catholic missionaries, than any other of the *Indo-Chinese* languages, though these fathers may, with some degree of propriety, affect the title of "*multiplicis idiomatis propagatores*." So early as 1651, the *Propaganda Society* published at Rome the "*Dictionarium Annamiticum Lusitanum et Latinum*" compiled by the jesuit ALEXANDER DE RHODES, after twelve years residence in *Cochin-China* and *Tonkin*, where he had studied under P. FRANCISCO DE PINA, the first who acquired skill and facility in that language. In composing his dictionary, he had also the advantage of employing the materials collected by P. GASPAR DE AMA-

RAJ and P. ANTONIO BARBOSA, the first of whom had made some progress in preparing an *Anam* and *Portuguese* dictionary, and the second in compiling one in *Portuguese* and *Anam*. This dictionary is printed wholly in the *Latin* character, as the author considered the *Anam* character as too difficult to be useful. It is accompanied by a short grammatical sketch of the *Anam* language, entitled "*Linguae Annamiticæ seu Tun-chinensis brevis Declaratio.*" Though I have never met with a learned *Cochin-Chinese*, I have seen several persons who could speak the vulgar language by rote, and have paid sufficient attention to it to perceive, that the dictionary of DE RHODES is a work of very great merit, though certainly susceptible both of additions and emendations. A new edition of it, would be a work of great utility, if our relations with *Cochin China* should ever become more intimate or important: a circumstance by no means unlikely, from the formidable aspect which that kingdom has lately assumed among the more easterly nations. The principal defect of the work is, its representing, very imperfectly, the *Anam* pronunciation, a defect unfortunately very difficult to be remedied, as the *Anam* language contains many sounds which correspond very little to those of any *European* language, and respecting which a grammarian might be tempted to say, with the devout missionary DIDACUS COLLADO, when treating of the pronunciation of a *Japanese* letter, "*quando in aliquo vocabulo fuerit (quod est val le frequens) orare debet discipulus, Deum, ut ei venas pronuntiationis aperiat*"—(*Prolog. in arte Grammat. Japonic. ling.* v. 4.) DE RHODES also published at Rome, in 1652, a catechism, for the use of his *Anam* converts, in *Anam* and *Latin*.

FROM the vicinity of the *Chinese* to the *Anam* nation, and the intimate connection that has at different periods subsisted between their countries, the *Chinese* character, as well as literature, has been introduced into both *Tonkin* and *Cochin-China*. *Chinese* literature is greatly affected by all who pretend to distinction in learning, in these countries: and in the language of *Anam*, the *Chinese* characters are denominated *Chine*. But besides this, another species of character, is in general use, and commonly employed in matters of business and private affairs, which is constructed on a principle entirely different, and though its letters are numerous, they bear no proportion to the *Chinese* signs, and, according to Dr. RHODES, they are unintelligible to the *Chinese* and those who are unacquainted with the *Anam* language. These characters, in the *Anam* language, are termed *Nom*. What relation they bear to the *Bali* characters I have not been able to determine accurately, though I suspect they will be found to be connected with that, or the *T'hay* alphabet. It is perfectly certain, however, that they have no connection with the proper *Chinese* character. I have been informed, by an intelligent *Chinese*, who had resided some time in both *Siam* and *Cochin China*, that the proper *Anam* character greatly resembles that of the *Siamese*. The missionary BORRI says, that the *Cochin Chinese*, in harangues, letters, memorials, petitions, "and such things as do not belong to printed books, for these, of necessity, must be in *Chinese* characters," generally employ about three thousand characters, which they find sufficient to express their meaning. If the compound characters, and contractions of the *Siamese*, be included in their alphabet, they would nearly amount to this number.

The *Chinese* character-forms, in reality, an abstract, philosophical language, such as has long been the theme of speculation in *Europe*, though it is generally regarded as an absurd and impossible reverie. It is not indicative of sounds, but of real objects and ideas; and consequently it is read and understood by at least twenty different nations, who would scarcely understand a word of one another's oral language, and would all use different words to express the same meaning. The only *European* characters, analogous to the *Chinese* symbolical written language are our numeral, algebraical, astronomical and chemical signs, which are constructed on the same abstract principles. The *Chinese*, however, sometimes contrive to make these singular characters perform a double office, and express sounds, as well as ideas; as when they write down *English* names, which another person can pronounce with great accuracy. As far as I have been able to learn, however, this can only be accomplished by persons who use the same spoken language.

THE *Anam* language is simple, original, and monosyllabic. What relations it may possibly bear to some of the spoken monosyllabic languages of *China*, to the *Man-chèw-Tartar*, to the *Korean*, *Formosan*, *Likyu*, or rather *Riu-kiu* languages, I cannot possibly pretend to determine; but it certainly has very little affinity to the *Mandarin*, or court language of *China* which is properly termed *Khunn*; to the *Kóng-tóng*, or language of *Canton*; to the copious polysyllabic and inflected *Japanese*; or to any of the other *Indo-Chinese* languages.

It is certainly possible to find several *Anam* vocables which coincide both in sound and signification with words in the *Khunn* or *Mandarin*-

Chinese, and also in the *Kóng-tóng*, as well as others, which closely resemble *Thai* or *Siamese* vocables; but nevertheless, all the essential parts of the *Anam* language are original and unconnected with any of the other monosyllabic languages, of which I have any knowledge. BARROW, an authority of some weight, in his "*Voyage to Cochin-China*," seems to consider the *Anam* as a derivative from the *Chinese*, "because it is constructed on the same principle." (p. 301.) "The spoken language," he observes, "has undergone a very considerable change, which is the less surprising, as the inhabitants of the northern and southern provinces of *China*, are unintelligible to each other; but though it has been altered, it does not appear to have received any improvement, neither from additions of their own, nor from the introduction of foreign words." (p. 322.) The precise meaning of this sentence, I confess I do not understand. The main of the *Anam* language, whether nouns, verbs, or significant particles, is totally different from that spoken *Chinese* language with which he has compared it; and he himself admits; "That it is so much changed from the original, as to be nearly, if not wholly, unintelligible to a *Chinese*." The *Anam* nation employ several sounds and letters which are incapable of being pronounced by a *Chinese*, such as *b*, *d* and *r*. The particles which form the cement, or construction of the language, are also different; and in addition to all these, the *Anam* language has a peculiar character of its own, which is not understood by the *Chinese*. It is difficult, after this, to conceive what similarity exists between the *Chinese* and *Anam*, unless that they are both monosyllabic languages, and that the signification of terms is regulated, in a great measure, by their accentuation. But

though the same monosyllables occur, and though they are also accented frequently in a similar manner, yet even in this case, the signification of these monosyllables is, for the most part, totally different. In the syntax or construction of the two languages, there is also a very great difference, for in almost all the instances in which the *Barma* language differs in construction from the *Malayu*, *T'hay*, and *Anam*, the *Chinese* agrees with the *Barma*, and differs from the three others. Thus, when two substantives follow each other, in *Chinese* and *Barma*, the first is in the genitive or oblique case; whereas, in *Malayu*, *T'hay* and *Anam*, the second is in the oblique case. Sometimes, too, the *Chinese* order of arrangement differs equally from them all. Thus, in *Chinese*, the adjective generally precedes the substantive, whereas it follows it in *Malayu*, *Barma*, *T'hay* and *Anam*. It must be observed, however, that when the term *Chinese* is applied to the spoken languages of *China*, it is used in a very wide signification, unless some particular province be specified. The *Chinese* colloquial languages appear to be more numerous than the *Indo-Chinese* tongues, and equally unconnected with each other. BARROW himself declares, that scarcely two provinces in *China* have the same oral language. (*Travels in China*, p. 244.) While the nature of the *Chinese* character is still so imperfectly understood, it is not surprising that the investigation of the spoken languages of *China* has been totally neglected. In the course of some enquiries that I made among the *Chinese* of *Penang*, I found that four or five languages were current among them, which were totally distinct from each other, and the names of several others were mentioned. I was informed that the principal *Chinese* languages were ten in number; but I have found that considerable variety occurred in the

enumeration of their names, and suspect that they are considerably more numerous, in reality. The following is one of the lists I received of these ten languages; but I have since been informed that it relates only to those which are spoken in the southern and western provinces.

- | | |
|---------|------------|
| 1 Kông, | 6 I ŭi, |
| 2 Wáy, | 7 Limm, |
| 3 Nám, | 8 Khunn, |
| 4 Chéw, | 9 Síw |
| 5 Séw, | 10 Kunnng. |

Of these, as has been stated, the first is represented as the language of *Canton*, and the eighth as the *Mandarin* language, or that which prevails in *Pekin*. To this list may be added the following:

- | | |
|----------------|----------------|
| 11. Hyong-san, | 14. Pún ngi, |
| 12. Sun-tukk, | 15. Tòng-khún, |
| 13. Nam-hói, | 16. Fo-khín. |

THE last of these is denominated *Chin-chew* by the *Chinese* of *Macao*; but the language spoken in *Macao* itself, is the *Hyong-San*. This enumeration, however, is extremely imperfect; nor have I been able to determine which of them are to be accounted original languages, and which dialects. Neither, without particular investigation, is it possible to ascertain, whether the *Anam* language may not be included in this enumeration, though I am rather inclined to the contrary opinion.

THE *Anam* language has neither genders, numbers, nor cases; moods, tenses, nor conjugations; all these are supplied by the use of particles and the juxta position of words, as in the other monosyllabic languages. The same word has often the signification of both a noun and a verb, and its particular use, in such a case, is to be determined by the con-

text, and the collocation of words in the sentence. The principles of collocation in sentences are equally simple as in the other monosyllabic languages. The adjective generally follows the substantive, as in *Malayu*, *Barma* and *T'hay*; but when two substantives come together, the last of them is in the oblique case, as in *Malayu* and *T'hay*, but contrary to the *Barma* order of arrangement. Thus, the phrase "the master of the house," is, in the *Anam* language *chúa nyà*; but *nyà chúa* signifies the house of the master. In *Malayu*, these two phrases are rendered by *túan ruma*, and *ruma túan*; and, in *T'hay*, by *chàn rún*, *rún chàn*; but the *Barma* follows a different order, and renders them by *ín-sak'héng*, *sak'héng-ín*, where *ín* signifies house, and *sak'héng*, master. The substantive verb is often omitted, as being reckoned inferent in adjectives, especially when preceded by the demonstrative pronouns. Thus, *núi này kaw*, this mountain high, i. e. is high, the assertion being implied. The nominative precedes the verb, the preposition the word which it presides over, the adverb adheres to the word which it modifies, the relative is wanting altogether, copulative conjunctions are generally omitted, and the peculiar modes of expression in the *Anam* idiom are chiefly such as result from the manners and habits of the people. The moods and tenses of verbs are formed by significant particles as in the other monosyllabic languages. As the *Anam* nation are equally formal and ceremonious as the *Chinese*, in their phrases of urbanity, and equally accurate in marking, with a minute and tedious precision, the degrees of respect and honor due to every person, in the several relations of stranger, acquaintance, neighbour, relation, parent, magistrate, and all the several degrees of magistracy and office; a great

deal of the idiom of the language consists in the different modes of expressing the respective relations subsisting between the speaker and the person addressed: hence originates the number of personal pronouns, expressive of these relations, as well as numerous circumlocutory forms of expression; the genius of both the *Anam* and the *Chinese* language requiring, that as often as possible, appellative nouns, and names of office, dignity, relationship, or consanguinity, should be substituted instead of the simple personal pronouns. Thus, a husband addressing his wife, and using the pronoun *I*, instead of saying *taw*, *ta*, or *gua*, any of which has the signification of the simple pronoun *I*, ought to say *anh*, which signifies *elder brother*; and his wife, on the other hand, ought either to denominate herself *tôi*, *handmaid*, or *éng*, *younger sister*; a woman, in like manner, addressing herself kindly to another, who is either younger in years, or inferior in rank, ought always to denominate herself *elder sister*; a husband addressing his wife, in polite terms, ought always to term her *younger sister*; and, in general, speaking to a young woman, she should use the same expression, but an old woman he ought to term *bau*, or *aunt*. A lover, addressing his mistress, terms her *younger sister*, while she, in return, terms him *elder brother*. A son, addressing his father, ought not even to term him *cha*, *father*; but *anh*, *father's elder brother*; *chu*, *father's younger brother*, or *cau*, *mother's brother*: in a similar manner, addressing his mother, he ought not to term her *mé*, *mother*; but either *cô*, *father's sister*, or *di*, *mother's sister*. It is easy to perceive that this minute accuracy of phraseology must have occasioned great trouble to the catholic missionaries in rendering portions of scripture into the *Anam* language; accordingly we find, that

they were extremely distressed about the propriety of the terms to be used, whenever GOD the FATHER, JESUS CHRIST, THE HOLY GHOST, or the VIRGIN MARY, were to be introduced as interlocutors, and dismally puzzled whether the VIRGIN ought to denominate herself, *tôi*, *handmaid*, or *mé*, *mother*, in addressing her son JESUS CHRIST; as a very trivial change of phraseology, in a language so delicate in its shades and distinctions, might have given origin to the most dangerous heresy.

THE accents, in the *Anam* tongue, are of such indispensable utility, that they have been very properly termed the soul of the language, while the primary monosyllables, varied by accent, have been made to represent its body. Conversation is a species of chaunt, or recitative, as in the *Chinese* dialects, and the other monosyllabic languages, which has, at first, a very ludicrous effect to an ear unaccustomed to it. The intonation, or accent of the *Anam*, struck me as entirely similar to *Chinese*, though BORRI, the catholic missionary, to whom it was familiar, pronounces it softer and sweeter, more harmonious and copious in both its tones and accents. He adds, that every word expresses a variety of significations, according to the diversity of accents with which it is pronounced; so that, to converse in it correctly, a person ought to understand the grounds of music. That he ought to have an ear of the most delicate sensibility is indisputable; and as this can never prevail very equally in a numerous nation, this variety of accent gives rise to such diversity of dialect, that through the whole *Anam* region, every considerable village or district has, as it were, a different language, and are often obliged to

have recourse to the written character, for communication with the districts in their vicinity.

BORRI affirms, that the sacred books of the *Anam* nation, are termed *Sék King*, while those relative to civil subjects are denominated *Sék Chuw*. He adds, that the first treat of the creation of the world, the nature of mind, the different classes of intelligent beings, morals and metaphysical theology; but both these classes of books seem rather to refer to *Chinese* literature, than to that which is peculiarly *Anam*; for *Sék* signifies only *book*, *Chuw* is the name applied to the *Chinese* character, and *King* is the name of the books first put into the hands of the students of *Chinese* literature. Numerous *Tru-yèn* or *Cheritras*, however, are known to exist in the *Anam* language and form the subject of their dramatic representations, in which the *Anam* nation are not inferior to the *Chinese*.

THE ancient code of *Tonkin* laws, possessed great celebrity, and was highly venerated previous to the late conquest of that country by the *Cochin-Chinese*. It is represented, by the missionary Lz ROY, as composed in the most elevated style of *Chinese*, and full of uncommon modes of expression. He also mentions, that it was printed with an *Anam* translation, composed by an ancient *Tonkin* Mandarin.

THE *Anam* style is sometimes highly bold and figurative, and attains a degree of animation which is not very common among the *Indo-Chinese* nations of the continent. If the *French* version can be depended on, we need only refer, in proof of this, to the manifesto issued by the usurper QUANG-TRUNG, in 1790, to quiet the minds of his subjects, alarmed at the reports of the prowess of the *French* auxiliaries, who aided the first

efforts of the present monarch for the recovery of his throne. "Be not so credulous as to listen to what they say of the *Européens*. What superior ability should that race be possessed of? They have all the eyes of green serpents, and we ought only to regard them as floating corpses, cast on our shores by the seas of the north," (*Nouvelles des missions Orientales*—p. 144.)

THE religion of the *Anam* nation is a modification of the *Buddhist* system, nearly resembling that which prevails in *China*. Many local and peculiar superstitions, however, are blended with it; such as the worship of the dog and tiger, to the first of which human excrement, and to the second, human flesh is offered. Traces of this worship are found among the mountaineers on the borders of *India*, as well as in the proper *Indo-Chinese* countries. Thus the tiger is worshipped by the *Hajin* tribe, in the vicinity of the *Garrows* or *Garudás*.

The *Quan-tó*, an ancient race, as the name signifies, who inhabit *Kau-bang* or the mountainous range which divides the *Anam* countries from *China*, regard themselves as the original inhabitants of *Tonkin* and *Cochin-China*; and consider the *Anam* as a *Chinese* colony. The *Quan-tó* have a peculiar language, and write with a style, on the leaves of a plant, termed, in *Anam*, *jiwa*. The *Môi* and *Mùòng* are also mountaineer tribes, who speak languages different from the *Anam*, but it is hitherto unknown whether they are original races, or only branches of the *Quan-tó*.

THE following comparative vocabulary of the *Barma*, *Thay*, and *Anam* languages, with the *Kong* dialect of the *Chinese*, will convey some idea of their mutual relations and differences. A few *Rukhng*

variations are also exhibited in the *Barma* column with the initial R prefixed.

	<i>Barma.</i>	<i>T'hay.</i>	<i>Anam.</i>	<i>Kong-Chinese.</i>
God	prá yíeng	pra-cháw	chúa	funn, t'hien-chí
heaven	nip-ban	fáwan	t'hién	t'hien
the earth	kam-ba	pi-p'hop	'dia	t'hien-ha
earth	myé R. mré	dín	'dat	ti
air	lé	lóm	phú-jyó	húng
water	yé R. ré	nam	nák, nuwok, thuy	fóí
fire	mí R. meing	fài	lúwa, húa	fóü
sun	né	tawán	nyít, mât-bloei	thai-yong, ngút
moon	lă	dùin	nguyít, mât-bláng	ngùit
star	kyi R. kri	dàw	faw, tinh	tun-fúng
sky	mó	fâ	bloei	mun-t'hien
sea	peng-lé	tă-lé	bé, bién, hăi	hoü
river	k'hyong R. kh'rôn	klong	fú	hó
animal	tareich-čan	săt	thu	chhók-lóí
bird	hngék	nók	-ching	chhéok-chay
fish	ngá	plâ	ka	ngù
plant	apáng	tón	thúw,	ch'háw
tree	apéng gyi	tón-mái	sang	fú, fút
leaf	ayéwék	băi	lá	hyep
hill	towng	p'hu-khaw	núi	fan
plain	lé-bieng	t'hung	'dów, nù	phéng
stone	kyíowk	hín	'dá	syük, liē
gold	fwé	t'hòng	wáng	kumm
silver	ngwé	ngùn	bak	ngúnn
brass	kyé	t'hòng-k'ham	t'haw	t'hóng
iron	fan	lêk	thiet, făt	thit
tin	khé	tă kôă	thiéck	syăk
rice	ch'han	ká 'ăn	gàw, lúa, kôem	mây
egg	ú	phai	tlueng	ch'hôn
day	ně	wán	ngày	yat
night	nya	k'hùn	'dêm	man
evening	nya-né	kham	ban-hom	yă
morning	manék	cháw	sang-nyay	chew
month	la	dùin	thang	yué, ngùit
year	neit	pí	nien, nam, tué, tuóí nín	

	<i>Barma.</i>	<i>T'hay.</i>	<i>Anam.</i>	<i>Song-Chinese.</i>
man	lu	khôn	ngúwóí	yun
man	yowk-kya	pacháy	nam	nan-yun
woman	mim-ma	paning	núw	nyu-yun
father	p'haé	p'hó	cha	hù, fú
mother	maé	mé	mé	anu
husband	léng	p'húwí	chàw, phu	law k'hung
wife	maya	miya	wó, t'he	láv-p'ho
son	fa	lok pachay	kon-blai	chí
daughter	fa-mi	lok paning	kon-gai	ngúē
elder	} bro-ako	p'hi-pachay	anh	akko
younger		nong pachay	éng	tí
elder	} fíf-umma	pi pǎjing	chi	amui
younger		nong-pǎning	éng	moéi
friend	fang-é-gyien	klù	ngžia	púng-yôw
enemy	yan-su	satrú	ngheích, thu	tzow-yun
head	gowng	huǎ	thù, 'dǎu	thôw
face	hmieck-na	ná	mat, may mât	mién
eye	hmieck-chei'ch	tá	nyan, mōk, máí	} ngān
			kon-mát	
nose	nakhaung	tímúk	múi	pi
ear	na	hu	tái	ngì
mouth	pajat	pāk	khau, mieng, ló-	} how
			mieng	
tooth	swa	fan	rǎng	ngá
tongue	sha	lín	luwoi	li
hand	lěk	mù	tay	sōw
foot	khyé	tín	chên	khúok
belly	wún	p'húng, thóng	deà, bǎw	t'hú
back	kyó	lang	kát	pui-hów
skin	ayé, fayé. R. aré, faré	nang	děa	phi
bone	ayo. R. aro	kǎdúk	kôt, shwang-kôt	ka
fish	aśa	nùǎ	thit	héwūk
blood	swè	lūt	máu tiet	hit
milk	no-yé	nám-nóm	suwa	nín
eat	chá	kín	an	kiē
drink	fók	kín-nám	ŭng	yúm

	<i>Barma.</i>	<i>T'hay.</i>	<i>Anam.</i>	<i>Kong-Chinese.</i>
stand	mat-tat	jùn	duēng	khi
sit	t'haing	náng	ngôi	cho
sleep	ít	nón	ngú	mi
strike	yeik	ti	'dam, 'danh	wat
kill	fat-pi'ch	k'ha	jiēt, fat	fat
red	ani	déng	'do, than	húng
green	acheing	k'héow	shanh	lok
yellow	awá	lùang	hoa ka, vang	wóng
white	ap'hyu	kháw	tlang, buk	pák
black	anék	dam	tham, ak	húil k
one	tít	núng	mot	yútt
two	hnít	fông	hui	ni
three	fông	fám	teng	fam
four	lé	fi	bon	fi
five	nga	ha	lang	úng
six	khyowk	hók	lak	lok
seven	khuhních	chét	bai	chhat
eight	shyít	pét	tang	pat
nine	kó	káw	chin	kow
ten	tă ché	síp	tap	sap
hundred	tă rá	rôi	klang	pák
thousand	tă't'hawng	p'hán	kin	chin
I	kyewin-nou'p	k'há	tôi, táu, ta, kwa	ngo, nga
we	khewin-nou'p-do	ráu	chúng-toi, moi-toi	nga-té
thou	méng	mùng	bái, mǎi, ngúwoi	ní
ye	maung, meng-do	sú	chúng-bái, moi-bái	ni-té
he	dén	mǎn	nó	k'hi, t'ha
they	den-do	mǎn arái	chúng-nó	k'hi-té, t'ha-té
who	bédu, bélu	kái	ai	nāko
what	bahá	arái	nào	méyǎ
which	bédéng	anci	nào (placed after a word)	nāko
all	alóng	t'hang-phé, thang-mót	} kak	tútú
many	apowng	māk		tó
few	cheich-cha-gulé	hit, nit	bé, dó, nyó	tuk, shaw
any, some	tăkhyo	kái kái	ko-ai	yów
above	at'nék	bôn	tlea	shyang

	Burma.	an ^{an} ay ^{ay} .	Anam.	Kong-Chinese.
under	awk	hai , lán	chuéng	há
in	at'hé	nay	oci, tláw	li, ín
without	pyéng	nók	vo, cháng-ko, ngöü ngoi, wai	
to	ko, go	lé	cho	ni, ū
from	ka, ga	té	boei	tzong
this	di hu	ni	nây	téko
that	ho-hu	nun	ey, nõ	'koko
there	ho hma	tino	bên-nõ	nuné
here	di hma	tiri	'bên-nây	koné
before	shyé	na	tluwók	sín
behind	nawk	t'm lán	fau	hów

§ XIV. **PALÍ.**—The *Pali* language, among the *Indo-Chinese* nations, occupies the same place which *Sanskrit* holds among the *Hindús*, or *Arabic* among the followers of **ISLAM**. Throughout the greater part of the maritime countries which lie between *India* and *China*, it is the language of religion, law, literature and science, and has had an extensive influence in modifying the vernacular languages of these regions. The name of this language, though commonly pronounced *Bali*, is more generally written *Pali*; but both forms are occasionally used. As the origin of the word is still very obscure, it is difficult to determine which is the more correct orthography. If, however, we could venture to identify the term with the *Báhlika b'hasha*, which, in the **SAHI'TYA DÍRPANA** of *Víswanátha*, is enumerated as one of the languages proper to be used by certain characters, in dramatic works, the latter ought to be considered as the more correct. **LE LOUBÈRE**, on the authority of **D'HERBELOR**, has stated (Tom. I. p. 452) that the ancient *Persic* language was called *Pahalevi*, (*Pahlavi*) and that the *Persians* do not distinguish in writing between *Pahali* and *Bahali*. This conjecture would be confirmed by the identity of the terms *Bali* and *Báhlika b'hasha*, were

it to be established; for no doubt can be entertained, that in 'Sanskrit geography, the epithet *Báhlíka* is applied to a northern *Indo-Persic* region, probably corresponding to *Bákh Bamiyan*. Among the *Indo-Chinese* nations, the *Balí* is frequently denominated *Lanka-basa*, or the language of *Lanka*, and *Magata*, or, as it is often pronounced, *Mungata*, a term which seems to correspond with the *Sanskrit Magad'hi*, which, in many of the *Vyakaranas*, is enumerated as one of the dialects proper to be used by certain characters introduced in *Natakas*, or *Hindú* dramas. According to KÆMPFER, the *Balí*, in the *Khom* language, and by the inhabitants of *Pegu*, was termed "*Maccata-pasa*," or *Magad'hi b'hasha*, as we may safely venture to render it. P. PAULINUS however applies this term inaccurately to the square *Balí* character, instead of the language (Mus. Borg. p. I.)

THIS language, notwithstanding its extensive use among so many nations, and the degree of cultivation which it has received from the different tribes by whom it is employed, has hitherto attracted little attention among *Europeans*. The indefatigable KÆMPFER, in his "*Amoenitates Exoticæ*," has very imperfectly exhibited the *Balí* alphabet. LA LOUBERE had previously published it more correctly, according to the form employed among the *Siamese*; his *Balí* alphabet is repeated in the *French Encyclopædia*, and CARPANIUS, in his "*Alphabetum Barmanum*," has exhibited the simple letters, according to the square form, employed by the *Barmas*. LA LOUBERE, in his "*Historical Relation of Siam*," has published "*The Life of THEVETAT*," said to be translated from the *Balí*, with a fragment termed "*An Explanation of the Patimouc, or of the Vinac*." P. PAULINUS, & S. BARTHOLOMÆO, in his "*Museum Bar-*

gianum," has, in his usual petulant, inaccurate, and desultory manner, exhibited some confused notices concerning the *Bidagat*, the *Pudi-mauka*, the *Kammua*, and a "*Compendium of the Barman Laws*," composed in the *Pali* language. Dr. F. BUCHANAN, in his "*Essay on the Religion and Literature of the Barmas*," (Asiat. Research. vol. vi.) has published a translation of the "*Kammua*," executed from the *Latin* version of VINCENTIO SANGERMANO, which differs considerably from the notices concerning that work published by P. PAULINUS, according to whom, in 1776, an *Italian* translation of it was made in *Pegu*, at the instance of cardinal BORGIA. Whether any of these versions have been made directly from the *Pali*, or only through the medium of a *Barma* or *Siamese* version, is, at least, very dubious: but the enumeration may suffice to show how far the attention of *Europeans* has been turned to this language. It would appear, that the learned LA CROZE, in his epistolary correspondence, has also treated concerning the relations and affinities of the *Pali*, but I have had no opportunity of consulting the collection of his letters. P. PAULINUS, in his coarse, acrimonious, and offensive way has also obtruded on the public, by obnoxious conjectures concerning it, but the publication of his "*VYACARAGRAH, seu locupletissima Sanscritamice lingue Institutio*," *Romae* 1804, has given a death-blow to his vaunted pretensions to profound oriental learning; and shown, as was previously suspected, that he was incapable of accurately distinguishing *Sanscrit* from the vernacular languages of *India*.

The personal merits or demerits of P. PAULINUS form no part of the proper subject of this essay; he is only mentioned here for the purpose of disclaiming his critical authority, when placed, as it has frequently been, by *European* writers, in competition with such authorities in *Hindû* literature, as Sir W. JONES, or Mr. COLEBROOKE. In his

THE *Bali* alphabet seems, in its origin, to be a derivative from the *Deva-nagari*, though it has not only acquired considerable difference of form, but has also been modified to a certain degree, in the power of the letters, by the monosyllabic pronunciation of the *Indo-Chinese* nations. It has dropped, in common use, some letters entirely, and accented others in a manner similar to the *U'd'hata*, *Anud'hata*, and *Swarita* tones, in the system of accentuation used in chaunting *Mantrás*, and in reciting the *Vedas* themselves. Thus, it has dropped both the palatal and the cerebral *sh* of the *Deva-nagari*, as well as the double consonant *ksh*, though

Museum Borgianum he has mistaken a specimen of *Malayu* for *Bengali*; but this is nothing to what occurs in his *Sanscrit Grammar*. The same blunder had been made before him, by the Editors of the polyglott "*Oratio Dominica*:" but the following are his own. A numerous class of *Sanscrit* nouns form the fifth case in *AT*; in *Tamul* and *Malayálam*, however, a case of similar import terminates in *AL*; and this case, which belongs to these vernacular languages, but never to *Sanscrit*, has P. PAULINUS uniformly substituted, in his *Sanscrit Grammar*, in the place of the regular *Sanscrit* flexion in *AT*. This substitution of the letter *l* for *t* is not confined to those instances only, in which the analogous flexions of a vernacular language may be supposed to have led to the error; it occurs in numerous instances, in which the *Sanscrit* and popular dialects coincide in using the letter *t*, and which must therefore be considered as the blunders of absolute ignorance. Thus, in the names of the tenses of the *Sanscrit* verb, he gives *lat* for *lat*, *lot* for *lot*, *lit* for *lit*, and *lut* for *lut*. A blunder similar to that which occurs in the fifth case of nouns, runs through a variety of flexions of the *Sanscrit* verb. Thus, he gives *abhaval* for *ab'havat*, *bhavadol* for *b'havadat*, *bhuval* for *b'havut*, *bhuyat* for *ab'hút*, *abhuvisyal* for *ab'havishyat*: but the whole work swarms with similar errors. What should we think of a *Latin* grammarian who should falsify the ablative case in nouns, and misrepresent the third person singular in verbs? Yet this is nothing more than what has been done by the redoubted P. PAULINUS, whom the learned SYLVESTRE DE SACY terms "*un écrivain des plus tranchans et les plus dédaigneux*;" and he has not only erred in the particular instances which he has adduced in his *Grammar*, but he has also laid down rules to justify his errors, as, in his rules for the permutation of *t*, *d*, *dh* &c. All his other works, that have fallen into his hands, are equally in error, arrogance and ignorance. Equally superficial, inaccurate, and virulent in his invective, of his own stamp would be tempted to retort on him, his own quotation from ENNIUS.

Simia quam similis turpissima bestia nobis.

the two first are still retained in the more correct alphabets. Instead of pronouncing the first series of letters *ka k'ha, ga g'ha, nga*, it recites them *ká, kà gāha, nga*, pronouncing *ka* thrice; first, in its natural tone; secondly, softly accented in treble, as if with the tone *úd'hata*; and thirdly, in a deep base tone, like the *anúd'hata* of the *Samavedá* Brahméns; *gāha* or *ga* is only recited once and that slightly accented, while *nga* suffers no alteration. A similar alteration occurs in the second series, *cha*, and the fifth series, *pa*. The vowels are generally presented in the same order as the *Deva nagari*, but by a similar mode of accentuation, eighteen are sometimes employed. The peculiarities of this pronunciation are, however, more closely adhered to by the *T'hay* or *Siamese*, than by the *Barma* and *Rukhṅg* nations, whose languages are neither so powerfully accented, nor so monosyllabic as the *T'hay*.

THE form of the *Bali* character varies essentially among the different nations by whom it is used. The square *Bali* character, employed by the *Barmas*, differs much from that which is used among the *Siamese*, and approaches nearer the form of the *Burman* character. The *Siamese Bali* character is termed, by the *Siamois*, *Khâm*, the *Khom*, or *Khómén* character; having, according to their own tradition, derived it from that nation. The square *Burma* character seems to coincide with the *Bali* character of *Lanka* or *Ceylon*; though in that island, *Bali* compositions are frequently written in the proper *Sinhala* character. Of the character used in *Láv*, *Champa*, and *Anam*, I have had no opportunity of judging. COLEMAN, in his "*Alphabetum Barmanum*," p. 37, asserts, that LA LOBERE, in his "*Historical Relation of Siam*," has mistaken the *Barma* and *Láv* characters for the *Bali*; and Sir W. JONES, in his

8th anniversary discourse, if I understand him, affirms the same thing, on the authority of a native of *Arakan*. The fact, however, is, that LA LOUBEREZ's alphabet, though imperfect, as the vowels are omitted, and the powers of several letters inaccurately expressed, is the real *Bali* alphabet of the *Siamese*, and that which I have found in use among the *Talapoins*, both of the *T'hay* and the *T'hay-j'hay* race, however it may differ from the *Bali*, in use among the *Barma* and *Rukhéng* nations. This character, however, when correctly written, is not round like the proper *Barma* character, but formed by a number of minute strokes, placed in an angular position, like the *Sing'hala Pushpákshara*, or flower-character. Indeed, on comparing the two characters, the square *Barma-Bali* character will be found to approach nearer the proper *Barma* character, than the *Bali* of *Siam*.

THE *Bali* is an ancient dialect of *Sanscrit*, which sometimes approaches very near the original. When allowance is made for the regular interchange of certain letters, the elision of harsh consonants, and the contraction of similar syllables, all the vocables which occur in its ancient books, seem to be purely *Sanscrit*. In *Chérutras* and latter compositions, however, some words of the popular languages of the country sometimes insinuate themselves, in the same manner as *Tamul*, *Telंगा*, and *Canara* vocables occasionally occur in the later *Sanscrit* compositions of the *Dekhin*. The *Bali*, which retains almost the whole extent of *Sanscrit* flexions, both in nouns and verbs, nevertheless employs them sparingly in composition, and affects the frequent introduction of the preterite participle, and the use of impersonal verbs. It also uses the

cases of nouns in a more indeterminate manner than the *Sanscrit*, and often confounds the active, neuter, and passive tenses of verbs. Like other derivative dialects, it occasionally uses *Sanscrit* nouns and particles in an oblique sense; but notwithstanding all these circumstances, it approaches much nearer the pure *Sanscrit*, than any other dialect, and exhibits a close affinity to the *Prákrit*, and the *Zend*.

THESE three dialects, the *Prákrit*, the *Balí*, and the *Zend*, are probably the most ancient derivatives from the *Sanscrit*. The great mass of vocables in all the three, and even the forms of flexion, both in verbs and nouns, are derived from the *Sanscrit*, according to regular laws of elision, contraction, and permutation of letters. Sometimes, in pursuing these analogies, they nearly coincide, sometimes they differ considerably, sometimes one, and sometimes another of them approaches nearest to the original *Sanscrit*. Their connection with this parent language was perceived, and pointed out by Sir W. JONES, and has also been alluded to by P. PAULINUS, who derives his information, concerning the *Balí*, from CARPANIUS and MANTEGATUS. The fate of these three languages is also, in some degree, similar. The *Prákrit* is the language which contains the greater part of the sacred books of the *Jainas*; the *Balí* is equally revered among the followers of BUDD'HA; while the *Zend*, or sacred language of ancient *Iran*, has long enjoyed a similar rank among the *Parsís* or worshippers of fire, and been the repository of the sacred books of ZOROASTER. It is, perhaps, however, more accurate to consider all the three, rather as different dialects of the same derivative language, than as different languages; and conformably to this idea, the *Balí* itself may be reckoned a dialect of *Prákrit*. The term *Prákrit*, both in

books, and in common use among the Brahméns, is employed with some degree of latitude. Sometimes the term is confined to a particular dialect, employed by the *Juinas*, as the language of religion and science, and appropriated to females, and respectable characters of an inferior class, in dramas. Sometimes it includes all the dialects derived immediately from the *Sanscrit*, whether denominated *Prákrit*, *Mágad'hí*, *Súraséni*, *Pais'achí*, or *Apábhrans'a*; and sometimes it is even extended to the *Désa-b'háshás*, or popular tongues of *India*, as *Mahrásht* or *Mahratta*, *Canara*, *Telinga*, *Udia* and *Bengáli*. According to the extended use of the term *Prákrit*, it may certainly include both *Balí* and *Zend*; and if more extensive research should justify the idea derived from an imperfect investigation, I apprehend that the *Balí* may be identified with the *Mágad'hí*, and the *Zend* with the *Súraséni*, of *Sanscrit* authors.

THESE three dialects, the *Prákrit*, *Balí*, and *Zend*, have been regularly cultivated and fixed by composition. The same laws of derivation are applicable to the formation of all the three; but yet there is often considerable diversity in the forms which particular words assume, as appears from the following comparative specimen,

	<i>Sanscrit.</i>	<i>Prákrit.</i>	<i>Balí.</i>	<i>Zend.</i>
man	purushah	puriso	bututfa	pešoroscho
woman	stří	trí	it'hi	stíree
daughter	putrí	púí	butri	pothré
wife	b'harya	bhariá bhaja	p'huiya	peéié perona
father	pitá	piá piáro	pita	fedró
mother	matá	maá maáro	matta	maté
wind	váyuh	baú	vayo	vato

	<i>Sanscrit.</i>	<i>Prákrit.</i>	<i>Bali.</i>	<i>Zend.</i>
fire	agnih	aggih	ak hi	atéré
horse	as'wah	ásó	atfa } acha }	aspo aspahé
hog	s'úkarah	suaró	súkaro	soubaré
dog	s'wá, s'wánum	funáu	funak'ha	funish } sepa }
buffalo	mahishah	mahisó	mahingfa	mesha
hand	hastah	hattó	hasti	zesté
sun	suryah } ravih }	suro } rai }	furiya ravé	houéré reéoué
tiger	vyagrah	bag'hó	p'hayagho	azra } vuzra }
tree	vrukshah	rukho } vuch'hah }	rukha	oroi'hé
village	grámam	grámam } gáü }	khaman	gutoué
the lingam	lingam	linkam	lankan	henghâmé
mountain	parvatah	pabbau } paüta }	bapato	berezoeté
world	prithiví	pahaví	pattwé	peété
forest	aranyam	ramam	aranja	heramn
he enters	pravishati	pavishai	pawisi	freescheté
they will come	ágamishwantí	ágamihü	akamifunti	aontiáo
he makes	karoti	karoi atti }	karoti	kereté
he is	asti	achi } asai }	hathi	asté
seven	saptah	fattó	sapta	hapté
heaven	swargah	faggó	faggó	spérézé

IN this specimen, the *Prákrit* words are selected from the *Manórama Vritti* of B'HAMAHÁ, and the *Prákritalanke'swarah* of VIDYÁ' VINÓDHA; the *Bali* are taken at random from the *Kumará-Bap*, *Chitamnan*, and *Hatamnán*; and the *Zend*, from the vocabularies of ANQUETIL DU PERRON, whose orthography, since I have not been able to procure the original *Zend*, has been preserved, however inaccurate, in preference

to conjectural emendation; though I am convinced that an orthography, more conformable to the original, would render the connection of *Zend*, with its cognate dialects, more apparent.

Specimen of Bali from the Hatyānān.

* SAGGE' kámécharupé gihi s'ik'hara-gaté chānt k'hé vim. né dipé rat'hé-cha gamé taruvanagahané gehavat'hambh. k'hetté

B'humma chāyāntu deva: jala t'hala-vishmé yakha-gandabba-naga tit'hantām-antikéyām munivara vachanam s'āyamo mé sanantu

D'hammassa-vanakā - - - - - bhaddantā namótassā-B'hagavatō Arhattō s'amma sambuddassā.

Yéfantā-santā-chitta trisāra s'arānā ita-lōkantarévā bhumma-bhumma-cha devā guna-gana-gahanā d'hayantā sabbakālam été āvāntu devā varakanakamaé méru-rajé vasantā.

Santōshahétam munivaravachanam sōtam maggam sammaggañ sabbésū chakka-vālélū yakhā deva-cha brāhmanō.

Which may be thus restored into Sanscrit, without the radical change of a single word.

SWARGE' kámécharūt é giris'ikharagaté chāntaīkshé vimāné dipé rāshtré grāmé taruvanagahané gihiavatihi k'hetté.

Bhūman chāyāntu devā jala t'hala-vishamé yaksha-gandharva-nāgāstīti hantām antiké-pām munivaravachanam sād'havō mé s'ānantu.

Dharmas'ravanakālōyum b'hanyantām: namaśtasya B'hagavatō Arhatō-samyak sambudd'hasma.

Yéfantā s'ānta-chitta trisāra s'arānā ihalōkōttarévā b'humau ab'humaucha, devā gunaganagahanā d'hayantā sabbakālam: été āyāntu devā varakanakamaé mérurājé vasantā.

Santōshahétum munivaravachanam s'rōtum agré samagmam sabbésu chakravaléshu yakshā devāścha brāhmanā.

The *Devas* frequent *Swarga*, *Kamrupa*, the mountain tops, and atmosphere, in their cars, and on earth, they visit the *Dwipas*, the fields, cities, recesses of forests, habitations, and sacred places. In inaccessible places, by land or water, the *Yakshas*, *Gandhervas* and *Nagas* reside, in the vicinity of waters. Listen to me, ye devotees, while

I recite the words of the *Muniwaras*: this is the time for hearing sacred things—(the devotees reply) Say on. (the speaker proceeds) Reverence to BHAGAVATA ARHATA, the all-comprehending. Those who hear, shall become pure of mind, and TRISARANA' shall protect them both in this and other worlds: the *Devas*, earthly and unearthly, possessed of various qualities, constantly present themselves to their thoughts, and the *Devas* who reside on *Meru*, the chief of mountains, of pure gold, frequent them. In the full and perfect hearing of the words of the *Muniwaras*, the *Yakshas*, *Devas*, and *Bramhanas* delight above all else.

THIS specimen may serve, in some degree, to illustrate the relation which the *Bali* bears to its parent *Sanscrit*. The passage is chosen at random, but considerable portions of *Bali* have been subjected to the same process with a similar result: and I am satisfied that it applies equally to *Prákrit* and *Zend*, though words of an origin foreign to *Sanscrit*, may occasionally be expected to occur in all the three dialects.

AFTER having thus briefly stated the origin of both the *Bali* language and written character, I should, in conformity to the plan which has been followed in this rapid sketch, proceed to the illustration of its characteristic structure and grammatical peculiarities, with the relations which it bears to *Prákrit* and *Zend*; but these, with a view of *Bali* literature, and its influence, as a learned language, on the vernacular *Indo-Chinese* tongues, I reserve for the subject of another essay. The politeness and literary zeal of Mr. COLFROOKE, have furnished me with ample facilities of investigating the *Prákrit*, in all its variety of dialects; but the paucity of my original materials, in *Bali*, and the total want of Mss. in *Zend*, have hitherto prevented me from giving the subject so full an investigation as its importance requires; but if the necessary materials can be procured, I hope to be soon able to submit to the Asiatic

Society the result of my enquiries. Of the *Bali* language, different *Kóshas* and *Iyáharanas* are known to exist; and several of them are to be procured in *Ceylon*, as the *Bali* '*Subdamala*, *Balaratara*, *Nigandu* and *Niganlu Sana*. Of the *Zend*, various alphabets and vocabularies, as well as original compositions, are extant; but no set of grammatical forms, with which we are acquainted. The learned TYCHSEN, in his dissertation "*De Cuneatis Inscriptionibus Persepolitanis*," 1798, recommends, earnestly, to the Asiatic Society, to form grammars and lexicons of the *Zend* and *Pahlavi*; and this must undoubtedly be performed if ever the subject be accurately investigated: for as yet we are imperfectly acquainted even with the true arrangement of the *Zend* alphabet, though it is probably the origin of the ancient *Kifí* character, if not the actual *Humyric* character itself. I have at present little doubt that the character of the ancient *Zend*, or as it is termed, according to ANQUETIL DU PERRON'S orthography, *Azieanté*, is derived from the *Déva-nágari*; for that author himself admits that the vowels coincide with the *Guzerathi*, and that in some alphabets the consonants also have a similar arrangement. Numerous circumstances likewise lead us to conjecture, that if ever the *Persepolitan* inscriptions in the *Arrow* character are decyphered, it will be on the principles of this alphabet. NIBHUR has stated, from actual observation, that the characters of these inscriptions are certainly written from left to right, like the *Déva-nagari*, and the alphabets derived from it. If this authority can be depended on, it completely sets aside every attempt to explain them by any alphabet written from the right hand to the left. A subject, however, like the *Arrow character*, concerning which there are almost as many opinions,

as authors who have engaged in the discussion, can never be illustrated by mere conjectures, however ingenious or plausible.*

* IN revising the sheets of this essay, I perceive that several omissions have occurred from the number and nature of the various materials employed, and the difficulty of classing them in the proper order of arrangement. The following additions are therefore subjoined.

To the notices concerning *Malay* compositions, the following may be added.

1. *Asál agúma Islam*, or the principles of the *Islam* faith.
2. *Idlal agúma Islam*, explanation of the *Islamic* worship.
3. *Idlalu'l fikeh*, explanation of the law of *Islam*.
4. *Makóta segála Raja*.
5. *Pasiru'l Korán*.
6. *Hadid Imam al-Murzuqín*.
7. *Hikayat Múraj Nahi Mahummed*.
8. *Hikayat Nabi Mahummed*.
9. *Hikayat Nabi Músa*.
10. *Hikayat Nabi Yúfuf*.
11. *Hikayat deripada kajadiatin Mir Mahummed*.
12. *Húkam Islam*.
13. *Húkam Khaj*.
14. *Húkam Kanón*.
15. *Elmu Fikeh*.
16. *Elmu Falak*.
17. *Kitabu'l Faraid*.
18. *Kitabu'l A'lah*.
19. *Sjihu'l Husénu'l Káshefi*.
20. *Samar ad-yánu'l Islam*.
21. *Mirat al Múqámin*.
22. *Marifat ul Islám, or Punganál agama Islám*.
23. *Permáta marifat Ali h*.
24. *Reazu'l Ichafi*.
25. *Rugin parungan*.
26. *Nur Mahummed*.
27. *Cheritra deripada Suliman*.
28. *Cheritra deripada al Omar*.
29. *Cheritra Raja Dewa Ahmud*.
30. *Cheritra Kobat Leila Indara*.
31. *Humfah penchuri*.
32. *Hikayat segála Súfuhunan*.
33. *Ilkhat Mila Túmon panji Wila Kafú na*.
34. *Hikayat Músa Gúmitar*.
35. *Hikayat Jaran Kolina*.
36. *Hikayat Chahaju Langrei*.
37. *Silsilatu'l Saláatin, or, Penúrunan segála Raja*.
38. *Hikayat Ambon*.
39. *Hikayat Achi*.
40. *Hikayat Bayan*.
41. *Hikayat Baktiyan*.
42. *Hikayat Tana Hitum*.
43. *Hikayat Jowhar Maníkam*.
44. *Hikayat Datu perjanga*.
45. *Hikayat Dewa Raja*.
46. *Hikayat Raja Bosman dan Lokman*.
47. *Hikayat Raja Tambik baja*.
48. *Hikayat Raja Suliman*.
49. *Hikayat Rajah ul Ajam o Afbah*.
50. *Hikayat Raja Kirripun*.
51. *Hikayat Raja Kambáyu*.
52. *Hikayat Raja Nila Datu Kawaj*.
53. *Hikayat Runga Rari*.
54. *Hikayat Isma Jatim*.
55. *Hikayat Abdullah ibn ul Omar*.

In addition to the list of *Barma* compositions, the following names of twelve popular works may be mentioned :

- | | | |
|--------------|------------------|------------------------|
| 1. Wí bǎo, | 5. Nyáwa, | 9. Namofara Lénga, |
| 2. Wí bǎng, | 6. Séng-gyó, | 10. Yadaná sui-gyáing, |
| 3. Padi muk, | 7. Wí-miy, | 11. Tǎng-úchó, |
| 4. Néwa, | 8. Sihg nǎmakar, | 12. Édana Rasi. |

The following additional notices and corrections of names refer to the list of *Barma* compositions given under the article *BARMA*, according to the respective numbers.

1. *Jainda Mana Bikkhu*, an account of the female ascetic *JAINDA MANA*.
2. *Nunda Jaino*, the history of a *Deva*, also named *ANUNDA*.
16. *Témi*, the religious institutes of *TEMI*.
- Némi*, Another of the ten great religious books of the *Budd'hists*, which are recited in the following order: 1. *Témi*. 2. *Némi*. 3. *Janaka*. 4. *Sawan Nasyan*. 5. *B'buridat*. 6. *Maho sai'ha*. 7. *Samata*. 8. *Wí'horá*. 9. *Chanda Gúngma*. 16. *Wesundara*. Besides these, the two following works are of great authority.

The *Paréik-gyi*, which is the *Barma Hatamnán*.

Pat'ham, which is the book of their mythology, composed by *SIYA CHEWA-PARA*.

8. *Dherma pat'há*, a book on Justice.
9. *Namagara*, a ritual of prayers.
10. *Logasara* and *Loganithi*, Moral Treatises.
14. *Paramitthan*, account of *Samata* and *T'hik D'hat*.
16. *Bongkha*, the adventures of *NEMI*.
17. *Kat'han*, a religious work on the expiation of crimes.
26. *T'at'han*, the same work as the *Rukhán*.
28. *Anusāṇa*, a small book for children, like the *Tat'han* and other compositions of *Ayār*.
30. *Attagat-Lénga*, the *Riddat*.
36. *Hmat-chew-Bong*, *A System of Morality*.

IV.

*An Account of the TRIGONOMETRICAL OPERATIONS in crossing the
PENINSULA of INDIA and connecting FORT ST. GEORGE
with MANGALORE.*

BY *Capt.* WILLIAM LAMBTON.

Communicated by THE HONORABLE WILLIAM PETRIE, ESQ. *Governor of* FORT ST. GEORGE.

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GENERAL ACCOUNT.

IN the year 1801 I had the honor of communicating to the Asiatick Society my intention of extending a geographical survey across the peninsula of India, with a view to ascertain certain positions on the Coromandel and Malabar coasts, and to fix the latitudes and longitudes of all the principal places, in the interior country, within the extent of the operations for connecting the two seas. My labours commenced in the Carnatic, in 1803, in measuring a small arc on the meridian and perpendicular, an account of which has been published in the 8th Vol. of the Asiatick Researches. The triangles, from which those arcs were deduced, constituted part of the general survey under my superintendence, now extended from sea to sea, taking in upwards of two degrees of latitude. A series of principal triangles has also been carried from Aden meridional direction, from which has been deduced an arc of three degrees and upwards of 14 minutes, giving the length of the degree, on the meridian, in lat. $11^{\circ} 55'$ to be 494 fathoms, and that from a great number of observations of different fixed stars. As I expect that the

tailed particulars of that arc will appear before the publick in another place, it will be sufficient barely to mention it here, as being the scale from which the latitudes of places are computed.⁽¹⁾

A FULL account of this survey being intended for a separate publication at some future period, when more materials will be collected, I have chosen for the subject of the present paper, that part of it which I think will be the most interesting; viz. the triangular operations in connecting the two seas, and the method by which the difference of longitude has been determined in my progress from east to west: and that it may be better adapted to the general reader, who, perhaps, may have neither time nor inclination to enter into minute details, I shall previously state, in a concise form, the manner in which the extensive operations have been carried over the great mountains, forming the eastern and western ghauts, and through the whole extent from *Fort St. George* to *Mangalore*.

⁽¹⁾ I have to mention here, that some of the stations had occurred at some of the stations, observation, occasioned no doubt by the plumb-line being drawn out of its vertical position; but it is impossible to say at which of the stations this happened, as at the three where the zenith distances were deemed the most unexceptionable, there is nothing to appearance, which can be considered competent to produce the effect in question. One of these three is in the ceded districts, in latitude 14° and upwards. Another is on the table land, near *Bangalore*, in Lat. 13° , and the most southerly one is in the latter country, in Lat. 11° . The arc, comprised between the stations in 11° and 13° , gives the measure of the degree in 60463 fathoms; and that, comprehended between 11° and 14° , gives only 60461 fathoms; so that there evidently has existed in the course of our going a plumb-line, at one or both of these northern stations. I have, for the present, taken the mean of the two cases, reducing them to the same latitude, $11^{\circ} 39' 57''$, which is 60462 fathoms. This measure, when used with all the recent measurements made in *India*, *Egypt*, &c. and at the polar circle, will give the mean ellipticity of the earth nearly the same, therefore the polar, to the equatorial diameter, will be in the ratio of 1 to 1.0045 nearly.

galore, being a distance of three hundred and sixty two miles and upwards, on the parallel of the mean latitude between these two places.

In the triangles of 1803, a great distance was determined between *Carangooly* and *Carnatighur*, at which stations, particular observations were made for determining the difference of longitude of these two places, and it was then thought probable that others might be found in succession, nearly west from *Carnatighur*, so as to fill up great distances for connecting the meridian lines; but it was afterwards discovered that *Kylasghur* was preferable, and it was accordingly chosen for connecting those distances to the westward, that between *Carangooly* and *Carnatighur*, as already determined in 1803, remaining the first.

KYLASGHUR was laid down in the side *Carnatighur* and *Hanandamulla*, being given in the 39th triangle, and the side *Hanandamulla* and *Poonauk* of the 21st triangle, was the base for finding the distance of *Poonauk* from *Pulloor* hill. From this last, and from the side *Kylasghur* and *Hanandamulla*, each taken as a base, the side *Kylasghur* and *Poonauk* has been obtained as a mean of the two results. From this, as a base, the series has been carried on to *Yerracondah* and *Kylasghur*, depending on the measured line near *St. Thomas's Mount*; the particulars of which have already been given in the 8th Vol. of the *Researches*.

THE base near *Bangalore* (on a coast of which is given in Art. 1st) then had recourse to, for finding the same distance, and it will appear, in the arrangement of the triangles depending on that base, that all the points are intended to be connected by a line, the distance between *Rymandroog* and *Yerracondah*. From that the triangles are carried eastward, and the side

Yerracondah and *Kylasghur* again brought out, differing from the former two feet, which will show, by proportioning the said side to the length of the new base, that had the triangles been carried on, and that base computed therefrom, it would have differed from the measurement $3\frac{1}{2}$ inches. The distance, therefore, between *Kylasghur* and *Yerracondah*, is the second great distance for connecting the meridian lines.

THE third of these distances is that between *Yerracondah* and *Savendraog*, which is had from the base *Savendraog* and *Nundydroog* to the northward, and *Savendraog* *Deorabetta* to the southward, differing 11 feet, the mean of which is made use of.

THE same two sides are used as bases to proceed to the westward: the stations to the northward are *Devaroydroog*, *Bomarelly*, and *Mullapunnabetta*; those to the southward are *Lundullydroog*, *Mysoor hill*, and *Mullapunnabetta*; and, from the mean of these, (the difference being 5 feet) the fourth great distance is had between *Savendraog* and *Mullapunnabetta*.

THE three stations, comprehending the two last distances, fall very favorably with respect to each other, the positions of their meridians have been fixed, with more than ordinary care, in moving to the westward. But, as this will be more particularly treated in giving an account of the perpendiculars deduced therefrom, I shall proceed to state the manner in which the triangles have been continued across the great mountains that form the western ghauts.

AFTER the observations were completed at *Mullapunnabetta* in Nov. 1804, the western monsoon being then over, and the favorable season

on the *Malabar* coast approaching, it became necessary that some previous knowledge of the country should be had, as I found that my intended direction would take me across the *Bullum* district, which is a part of the ghats forming a curve convex to the eastward, and, in consequence, is at too great a distance to discover any object on the sea coast; for I had all along entertained hope of finding two or three stations, on the tops of these high mountains, from which to intersect the flag staves at *Cannanore*, *Tellicherry*, and *Mangalore*. For the purpose of selecting stations I had detached Lieut. KATER, one of my assistants, who, after encountering many difficulties, succeeded in the choice of two, one on the top of *Balroyndroog*, in the *Bednore* province, and the other on *Koondhully*, mountain in the *Koorg*. The distance between them has been derived from the base, *Mullapunnabetta* and *Dae-saunergooda*; as is also the fifth great distance connecting the meridians of *Mullapunnabetta* and *Balroyndroog*. These stations, however, being too remote from the sea, I decided on descending the ghats, and on the distance between them as a base, a series of triangles was carried through to *Mangalore*, and thence along the coast to *Mount Delli* and *Cannanore*.

It will no doubt be noticed, that the great extent from *Bangalore* to the sea coast required that another base should have been measured to verify the triangles in the triangular operations, and it was my intention that it should have been done, but circumstances and various avocations prevented it, till the season became so far advanced that every other object would have been lost. I had to fix the meridian at *Balroyndroog*, and to observe zenith distances at *Paughur*, the intended northern extremity of my meridian arc; and, by the time I arrived at the latter

place, it was the end of April, and very shortly after that the monsoon set in. I had, however, laid the foundation for a southern series of triangles, to be carried through the *Koorg* to *Mount Delli*, which was rendered practicable by the assistance afforded me by the *Koorg* Rajah, to whose liberal aid I am indebted for the successful means I had in carrying the triangles over these stupendous mountains. Several beacons had been erected on commanding situations pointed out by me, previous to my descending the ghauts, some of which were distinctly seen from every part of the coast, and one of them (*Taddiandamole*) being visited as a station, the season following, I was enabled, thereby, to intersect the flag staves at *Cannanore* and *Tellicherry*, and also a signal flag on my former station on *Mount Delli*. This branch of triangles was carried on in the beginning of 1806, and commenced from *Mullapunnabetta* and *Mysoor* hill, and thence to *Bettatipoor*, *Soobramanee* hill, *Taddiandamole*, *Kunduddakamully*, *Mount Delli*, and *Baekul*. From the distance between *Taddiandamole* and *Mount Delli*, *Cannanore* and *Tellicherry* have been laid down; and upon the distance between *Baekul* and *Kunduddakamully*, a branch of triangles has been carried up for finding the distance from *Bullamully* to *Kunnoor* hill, which was also determined by the northern series, and there is a difference of $3\frac{7}{16}$ feet. I have been more particular in giving an account of this southern series, because the object was to do away any doubt that might exist, as to the accuracy of the northern one, from the want of a base on the *Malabar* coast; and I think, so far as regards nautical purposes, no error, of any importance, can exist. It will, however, be necessary that a base line be measured near *Mangalore*, from which all these distances, near the sea.

should be derived anew, when a more minute survey of the coast is made.

As the situation of the places on the *Malabar* coast, and their relative positions, with respect to the observatory at *Madras*, and other places on the coast of *Coromandel*, constitute a most important part of this survey, I have left nothing undone, in that respect, to give full and entire satisfaction. But the great accuracy required, in these low latitudes, in ascertaining the length of a degree of longitude, has called forth more than ordinary attention; and I have reason to hope, from the many favorable and concurring circumstances, that my endeavours have been rewarded with success. The three stations best situated for determining the length of an arc, perpendicular to the meridian, are *Yerracondah*, *Savendroog*, and *Mullapunnabetta*, their respective distances from each other being nearly *sixty-seven miles*; and lying in a direction very nearly east and west, the spheriodical corrections for the angles are trifling. All the other great stations have therefore been used for connecting the meridian lines, their latitudes and longitudes being computed spherically, by using the oblique arcs, as obtained on the elliptical hypothesis, the perpendicular degrees having been found equal to 60748 fathoms, and the meridional degree 60498 fathoms, in latitude $12^{\circ} 55' 10''$, which is the latitude of *Savendroog*, as had by referring to the latitude of *Dodagoontah*, the great station of observation, (Art. 8) for fixing the point of departure.

The arc of 60748 fathoms, for the length of the degree perpendicular to the meridian, in lat. $12^{\circ} 55' 10''$, is considerably different from what was formerly obtained from the observations made at *Carangooly*.

and *Carnatighur*, and reduced to the same latitude; but this is not to be wondered at, considering under what great disadvantages they were made, and the extreme accuracy required in making them: and it may be further remarked, that *Carnatighur* is by no means an eligible station, on account of the great mass of mountains on the west, and the low sandy plain to the east, which comes to the foot of the mountain. Such an inequality of matter must doubtless produce a great lateral attraction, and sensibly affect the instrument. The station on *Balroyndroog*, on the top of the western ghauts, has been laid aside on a similar account.

THE relative positions of *Savendroog*, *Mullapunnabetta*, and *Yerracondah*, having been fixed with great accuracy, the connection with the observatory at *Madras* is effected, by working back to *Carangooly*, by means of the oblique arcs, (Art. 15) and then using the northing and easting, and computing spherically, by converting the easting into an arc at right angles to the meridian of *Carangooly*, and passing through the observatory; and also using the co-latitude of the point of intersection of the said arc and meridian. From this computation, the latitude of the stone pedestal in the centre of the observatory is had equal $13^{\circ} 4' 8''.7$. The position of the flag-staff at *Mangalore*, is deduced from the meridian of *Balroyndroog*, by using the southing and westing, in a similar manner, as at *Carangooly*, with respect to the observatory. It is thence found to be in lat. $12^{\circ} 51' 38''$ N. and $34' 50''$ W. from the meridian of *Balroyndroog*. By summing up the respective differences of longitude, we shall have $5^{\circ} 25' 23''$ for the longitude of *Mangalore* west from the observatory; to which add $2' 22''$, the easting of the church steeple in *Fort St. George*, we

get $5^{\circ} 27' 45''$ for the difference of longitude between the steeple in *Fort St. George* and the flag-staff at *Mangalore*.

THE meridians of *Carangooly* and *Balroyndroog* are also used for fixing the latitudes and longitudes of other places on the two coasts, as will be seen in the detailed account (Art. 15); so that by having the positions of a few places accurately laid, the general form of the peninsula may be determined, and a foundation laid for carrying on more minute surveys, both along the coasts and in the interior. I have given here the mode of computing the positions of the most remarkable places on the coasts, and of the great stations connecting the meridian lines. But from these different meridians, the latitudes and longitudes of other places are fixed by using the eastings and westings, and the northing and southing from the great stations, and computing spherically; so that the whole together amount to near six hundred. I have subjoined to this paper an alphabetical list, which includes the most remarkable places within the extent of the survey: and I have also added a table, giving the perpendicular height of all the great stations above the level of the sea, and the ultimate comparisons of the height of a station on the beach, near *Mangalore*, as had by computing from *this* coast, and by measuring from the water mark on the *other*, where there appears an error only of $8\frac{1}{2}$ feet. This table also contains the terrestrial refractions.

It will be unnecessary to say more here; there being sufficient, by referring to the plan of the triangles, to convey a general idea, and the adjoining detail will furnish all the materials for a more critical examination of the subject. The work is now grown to a magnitude far ex-

ceeding what was first proposed, and will, I hope, be adopted, as a foundation for a more finished superstructure, in times to come. The task has been an interesting one, and by no means arduous. Freed from restriction of every kind, and permitted to act under the most liberal conditions, I have been enabled to obviate every difficulty; which otherwise must have embarrassed my exertions, and defeated the ultimate objects of my labours.

SECTION I.

SERIES of triangles taken up at *Hanandamulla* and *Pilloor Hill*, and carried to the base near *Bangalore*.

I. ANGLES.

At Hanandamulla.

<i>Between</i> Kylasghur,	<i>And</i> Pilloor Hill,	98° 19' 34".6 31.6 34.5	} 33".8
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At Pilloor Hill.

Kylasghur,	Hanandamulla,	42 59 9.25 5.8 8.95	} 8
	Patticondah,	50 13 25.7 26.95	} 26.32
	Bodeemulla,	50 36 20.75 21.4	} 21.07

At Kylasghur.

Referring flag,	Patticondah,	53 2 34 33.62	} 33.81
	Yerracondah,	89 17 57.16 56. 59.66	} 57.61

At Kylasghur, continued.

<i>Between</i>	<i>And</i>		
Referring flag,	Bodeemulla,	2° 15' 44"	
		44.25	} 42°.9
		44	
		42.25	
		40	
	Pilloor Hill,	03 9 56.5	} 54.15
		54	
		53.25	
		53.12	
		53.75	
		54.25	
	Patticondah,	53 2 33.81	
	Yerracondah,	89 17 57.61	
Patticondah,	Yerracondah,	36 15 23.80	
Referring flag,	Patticondah,	53 2 33.81	
	Bodeemulla,	2 15 42.9	
Patticondah,	Bodeemulla,	50 46 50.91	
Referring flag,	Bodeemulla,	2 15 42.9	
	Pilloor Hill,	33 9 54.15	
Bodeemulla,	Pilloor Hill,	35 25 37.05	
Referring flag,	Pilloor Hill,	33 9 54.15	
	Patticondah,	53 2 33.81	
Pilloor Hill,	Patticondah,	86 12 27.96	
Referring Lamp,	Pole-star's W. elongation, 3 28 57		
		52.4	
		55.25	
		53.5	

At Bodeemulla.

Kylasghur,	Patticondah,	85 23 41.5	} 40.3
		39.1	
	Pilloor Hill,	93 58 8.8	} 6.45
		5.15	
		7.15	
		7.4	
		4.25	

At Patticondah.

Rymandroog,	Yerracondah,	56 22 19.75	} 20.37
		21.	

At Patticondah, continued.

<i>Between</i>	<i>And</i>			
Yerracondah,	Kylasghur,	101	21	48.45
				49.1
Kylasghur,	Bodcemulla,	43	49	34.8
				37.15
				34.95
				37.8
				36.3

At Yerracondah.

Referring flag,	Rymandroog,	35	51	24.85
				28.6
				24.85
				28.55
				26.
	Tirtapully Hill,	73	22	43.25
				42.75
				46.25
				46.5
				47.25
				46.5
				46.
				46.75
				47.25
				46.5
Rymandroog,	Patticondah,	78	25	51.85
				50.20
				52.95
				49.85
				50.45
Referring flag,	Kylasghur,	34	57	10.
				14.35
				12.45
				10.5
				13.18
				14.5
				12.
				12.25
				14.5
				10.75
	Patticondah,	42	34	24.5
				22.
				23.4
				24.4
				23.25
Savendroog,	Nundydroog,	37	46	58.22
				58.47
				60.10
				58.47

At Terracondah, continued.

<i>Between</i>	<i>And</i>		
Rymandroog,	Deorabetta,	82° 19' 13".5	} 15'.21
		15.5	
		16.62	
Referring flag,	Savendroog,	94 16 15.	} 14.97
		13.	
		16.5	
		16.5	
		14.5	
		14.75	
		14.5	
		15.75	
		15.5	} 21.35
		13.75	
	Ankissgherry,	143 13 21.	
		23.5	
		18.5	
		20.	} 21.35
		23.75	
	Rymandroog,	35 51 26.57	
	Tirtapully Hill,	73 22 15.90	
Rymandroog,	Tirtapully Hill,	37 51 19.33	
Referring flag,	Patticondah,	42 44 23.51	
	Kylasghur,	81 57 12.48	
Patticondah,	Kylasghur,	12 22 48.97	
Referring flag,	Tirtapully,	73 22 45.90	
	Ankissgherry,	143 13 21.35	
Tirtapully,	Ankissgherry,	69 50 55.45	
Rymandroog,	Deorabetta,	82 19 15.21	
	Tirtapully Hill,	37 51 19.33	
Deorabetta,	Tirtapully Hill,	44 47 55.58	
Referring flag,	Rymandroog,	35 51 26.57	
	Savendroog,	94 16 14.97	
Rymandroog,	Savendroog,	58 24 48.4	
	Deorabetta,	82 19 15.21	
Savendroog,	Deorabetta,	23 54 26.81	
Referring flag,	Pole-star's W. elongation, 9 3 6.5	3.85	
		2.	
		3.5	

At Yerracondah, continued.

<i>Between</i>	<i>And</i>	
Reising flag, -----	Pole-star's W. elongation, ----	9° 3' 5.5
		3.75
		4.
		5.
		4.25

At Rymandroog.

<i>Between</i>	<i>And</i>		
Yerracondah, -----	Patticondah, -----	45. 11' 52'.15	} 51".7
		51.25	
	Tirtapully Hill, ----	49 22 56.85	} 51.58
		53.25	
		55.25	
		57.95	} 50.05
	Nundydroog, -----	121 27 28.5	
		33.9	
		28.6	
		28.3	
		30.95	} 51.58
Yerracondah, -----	Tirtapully Hill, ----	49 22 54.58	
	Nundydroog, -----	121 27 30.05	
Tirtapully Hill, -----	Nundydroog, -----	72 4 35.47	

At Tirtapully Hill.

Nundydroog, -----	Rymandroog, -----	51 31 46.65	} 41.03
		44.25	
		41.5	
		42.75	
		42.	} 51.3
Rymandroog, -----	Yerracondah, -----	93 5 56.	
		50.75	
		50.	
		49.75	
		50	} 18.04
Deorabetta, -----	Yerracondah, -----	97 51 18.75	
		18.37	
		17.	} 9.25
Yerracondah, -----	Ankissgherry, -----	38 16 9.9	
		8.6	} 40.24
Nundydroog, -----	Bonnairgottah, ----	95 53 43.	
		49.17	} 16.15
Muntapum Station, -----	Bonnairgottah, ----	31 25 15.03	
		17.27	} 8.96
Muntapum Centre, -----	Bonnairgottah, ----	31 25 7.97	
		9.95	

At Tirtapully Hill, continued.

<i>Between</i>	<i>And</i>		
Savendroog,	Allasoor Hill,	36° 33' 33".02	} 30'.37
Deorabetta,	Savendroog,	27.75	
Deorabetta,	Yerracondah,	46 42 26.25	} 24.5
Ankissgherry,	Yerracondah,	22.75	
Ankissgherry,	Deorabetta,	97 51 18.04	
		38 16 0.25	
		<hr/>	
		59 35 8.79	

At Nundydroog.

Rymandroog,	Tirtapully Hill,	56 23 42.75	} 44.
		43.75	
		42.75	
		46.75	
Savendroog,	Tirtapully Hill,	71 26 37.25	} 38.55
		38.	
		40.75	
		58.5	
Savendroog,	Yerracondah,	38.25	} 29.02
		29.25	
		28.4	
		28.	
Savendroog,	Devaroydroog,	30.34	} 53.48
		51.42	
		52.92	
		54.17	
		55.42	

At Bonnairgottah.

S. end of the Base,	Muntapum Station, .	38 46 30.02	} 31.15
		32.28	
Muntapum Station,	Tirtapully Hill,	51 7 53.25	} 54.62
		53.6	
		57.	
Tirtapully Hill,	Muntapum Centre, .	51 5 56.65	} 56.91
		56.55	
		59.55	
		54.9	
Muntapum Centre,	Savendroog,	70 52 25.06	} 23.91
		22.77	
Savendroog,	Allasoor Hill,	75 50 27.25	} 27.92
		28.5	
		28.	

At Bonnairgottah, continued.

<i>Between</i>	<i>And</i>			
Dodagoontah Station,	Savendroog,	83° 20	14'.75	} 16".17
			17.5	
			16.25	
Savendroog,	Tirtapully Hill,	121 58	22.76	} 22.17
			21 59	

At the Muntapum Centre.

Bonnairgottah,	Tirtapully Hill,	97 28	55.75	} 55.27
			54.55	
			55.	
			55.5	
	Savendroog,	69 50	45.25	} 46.5
			47.75	
Tirtapully Hill,	Savendroog,	167 19	40.52	} 41.77
			43.02	

At the Muntapum Station.

N. end of the Base,	S. end of the Base,	56 56	40.62	} 41.42
			41.4	
			42.25	
			42.25	
S. end of the Base,	Bonnairgottah,	35 3	56.05	} 56.05
			54.75	
			54.25	
			57.75	
			57.5	
Bonnairgottah,	Tirtapully Hill,	97 26	51.55	} 52.39
			55.25	

At the S. End of the Base.

N. end of the Base,	Muntapum Station,	33 43	60.4	} 60.06
			58.15	
			61.27	
			60.43	
	Dodagoontah Station, 17	38	47.85	} 47.51
			45.6	
			48.72	
			47.88	
			47.88	
Muntapum Station,	Bonnairgottah,	106 9	36.25	} 37.72
			39.76	
			36.5	
			38.38	

At the N. End of the Base.

<i>Between</i>	<i>And</i>		
S. end of the Base, -----	Muntapum Station, 89° 19' 21".5	19.75	} 20°.75
		20.25	
		21.5	
	Dodagoontah Station, 67° 41'	24.5	} 22.55
		20.75	
		20.75	
		21.25	
		25.5	

At Deorabetta.

Savendroog, -----	Tirtapully Hill, ---	79 40 54	} 52.9
		52	
		53	
		52.75	
		52.75	
Bonnairgottah, -----	Ankissgherry, -----	98 54 18	} 20
		21.5	
		20.5	
Savendroog, -----	Bonnairgottah, -----	32 56 38.25	} 37.17
		36.25	
		37	
Savendroog, -----	Bonnairgottah, -----	32 56 37.17	
	Tirtapully Hill, -----	79 40 52.9	
Bonnairgottah, -----	Tirtapully Hill, -----	46 44 15.73	
	Ankissgherry, -----	98 54 20	
Tirtapully Hill, -----	Ankissgherry, -----	52 10 04.27	

II. MEASUREMENT of the Base Line near *Bangalore*.

THIS base was executed by Lieut. WARREN, of H. M. 33d Regt. then one of my assistants; and was intended as a datum for extending the triangles to the *Malabar coast*; and also as a base of verification to the triangular measurement brought from the base near *Madras*; and it appeared that, by continuing the computations the whole distance, and making this base one of the sides of the last triangle, the computation exceeded the measurement only $3\frac{1}{16}$ inches.

No further account need therefore be given of the manner of performing this very important and delicate part of the work, than, that in addition to the apparatus used in the former measurement near *St. Thomas's Mount*, there was a transit telescope, in all respects similar to that mentioned in the account of the trigonometrical survey of *England* for fixing objects in the *alignement*, and taking the elevations and depressions at the same time. The manner of using it was as follows.

WHEN the instrument was placed at a sufficient distance behind the commencement of an hypotenuse, so as to see distinctly the mark placed on the head of the drawing post, and the elevation or depression of the hypotenuse finally determined, the instrument, being covered from the sun by a small cloth pandal, remained in that position, till four, or sometimes five chains were measured. Previous to removing it, a small hooped picket was placed, by signal from the person at the transit, at a proper distance behind the termination of the last chain. In fixing the spot for this little picket, a common rod, with a sharp point, was used, and the telescope of the transit depressed to the place on the ground intended to be marked. After the spot was fixed on, and the picket driven down, the instrument was removed, and placed in the *alignement*, with the plummet hanging over the centre of the little picket, and then a new hypotenuse was laid out, or the former one continued.

WHEN the hypotenuse was terminated, a register picket was driven into the ground, opposite to the arrow of the chain, and in such a manner, that when the brass head was fixed thereon, the slide might be parallel to the chain, and very near it. A piece of wood was contrived to be placed upon the brass head, and fixed by a screw, which pressed against

the end of the slider, so that when that slider was moved by its own screw, the wood, thus attached, moved with it, in the direction of the alignment, as nearly as the eye could judge. On the top of this wood was placed a T, having also a motion in the same direction with the brass slider, to expedite the operation; and on the top of this T, a brass ruler, in length about six inches, was placed, having a sliding motion at right angles to the other; and in the middle of the projecting end, was a mark from which the plummet was suspended, and by the two motions, at right angles to each other, the plumb line was easily brought to coincide with the arrow terminating the hypotenuse. A like operation was gone through with the commencement of the next hypotenuse, and the arrow brought to coincide with the same plumb line. Here the distance of each arrow above or below the brass rule was noticed as in the former measurement.

If, after the removal of the transit, the same hypotenuse was continued, the register picket, at the end of the chain, was left standing; and when the instrument was brought into the alignment with the plummet over the mark, nothing was required but to place the telescope at the former elevation or depression, and move the cross vane which is applied to the heads of the pickets and stands, till the appropriate mark coincided with the horizontal wire in the focus of the eye glass.

OPERATIONS IN THE PENINSULA.

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Experiments, made for comparing the Chains, previous to the measurement.

Month.	Thermometers.					Mean of 5 Thermometers.	Comparisons.
1804.	1	2	3	4	5		
May 28.	73	73	72	72	73	72.6	<i>Divisions.</i>
A. M.	73	74	73	72	74	73.2	The old chain exceeded the new one by 17.5
	74	74	74	73	74	73.8	..... 16.00
	74	74	74	73	73	73.6	..... 15.75
	74	74.5	74	73	73	73.6	..... 16.00
	74	75	74	74	74	74.2	..... 15.5
	75	76	75	74	75	75.0	..... 14.75
	75	77	76	75	75	75.6	..... 14.75
	77	79	78	76	76	77.2	..... 15.00
							..... 14.00
	Mean					74.3	Mean 15.47

Experiments, made for comparing the Chains, after the conclusion of the measurement.

Month.	Thermometers.					Mean of 5 Thermometers.	Comparisons.
1804.	1	2	3	4	5		
July 12.	78	78.5	79	78	80	78.7	<i>Divisions.</i>
A. M.	80	80	79	80	80	79.8	The old chain exceeded the new one by 18.25
	81	80	80	77	80	79.6	..... 18.00
	80	79	80	80	78	79.4	..... 17.5
	81	80	80	80	79	80	..... 18.00
	81	81	79.5	81	80.5	80.6	..... 18.00
	81.5	81.5	80	81	82	81.2	..... 18.25
	82	81	80	81.5	81.5	81.2	..... 18.00
	82	81	79.5	82	82	81.3	..... 17.5
	82	81	80	82	81	81.2	..... 17.25
							..... 18.25
	Mean					80.3	Mean 17.9

ACCOUNT OF TRIGONOMETRICAL

Table, containing the Particulars of the Measurement.

No. of the Hy- pothenuse.	Length of each in feet.	Angles of E. & D.	Deductions from each Hy- pothenuse.	Perpendicular.		Commence- ment from the last.		Mean of 5 Thermometers.	REMARKS.
				Ascents.	Descents.	Above inches	below inches		
1	600	0° 16' 01"	.00648	feet	feet	feet			Commenced the 26th May 1804.
2	600	0 2 17	.00012		2.7954	26. 6		94.8	
3	400	0 22 56	.00892	0.3985		3. 6		86.5	
4	300	0 53 31.5	.03696		2.6664		5. 9	84.9	
5	400	1 13 15	.09080		4.6707		7. 5	82.1	
6	300	0 16 43.5	.00354		8.5224		8. 5	83.4	
7	900	0 13 16.5	.00675		1.4595		5. 8	96.6	
8	800	0 39 15	.05208		3.4754		6. 9	81.9	
9	300	1 15 15	.07188		9.1337	6. 9		81.8	
10	300	0 47 28.5	.00682		6.5663		4. 7	80.2	
11	800	0 57 15	.11096		4.1428		3. 4	86.5	
12	300	1 3 42	.05151		13.3220		6. 9	82	
13	200	0 48 30	.01990		5.5585		6. 4	86.7	
14	600	0 12 31.5	.00402	2.1860	2.8215		8. 9	74	
15	600	0 29 1.15	.02132				19. 5	83.4	
16	700	1 2 30	.11564		5.0658		6. 9	88.1	
17	600	1 26 34.5	.19026		12.7257		15. 0	82.7	
18	700	1 25 49.5	.21812		15.1086	6. 4		99.8	
19	200	0 45 35	.01758		17.4740		5. 2	95.8	
20	500	0 26 10	.01450		2.6518	1. 1		79.7	
21	200	0 24 52.5	.00582	1.4471	3.8057		25. 2	84.4	
22	200	1 10 41	.04228			4. 7		90.9	
23	200	Level ---	-----		4.1119	3. 4		79.1	
24	600	0 10 40.5	.00288			3. 5		77.2	
25	1400	0 58 21	.15840	18.6697	1.8631	46		82.9	
26	400	0 57 57	.05680	6.7425		15		80.5	
27	500	0 46 20	.04540	6.7387			6.9	87.8	
28	700	0 16 1.5	.00756	3.2630		22. 1		79.2	
29	500	0 22 1.5	.01027			2. 9		79.7	
30	400	1 24 09	.11940		3.2033		5	80.7	
31	500	1 42 43.5	.22320		9.7729	10		80.2	
32	200	Level ---	-----		14.9385		4	77.1	
33	500	0 5 41	.00070			4. 9		77.1	
34	800	0 25 33	.02208	5.9457	0.8366	43. 6		83.6	
35	1000	0 12 1.5	.00610	3.4979		7. 5		85.2	
36	700	0 37 39	.04200	7.6062			10. 4	75.6	
37	900	0 52 16	.10404	13.6828		8.75		86.1	
38	500	0 53 49.5	.06150	7.8282		9		81.1	
39	1200	0 40 44	.08424	14.2183		16. 1		78.2	
40	800	Level ---	-----				8.25	81.4	
41	200	0 52 17	.02312	3.0116		4. 9		74.3	
42	300	1 14 41	.07080	6.5168		1		87.1	
43	500	2 5 1.5	.33065	18.1801			3. 3	80	
44	300	1 20 53.5	.08313	7.0614		16		83.9	
45	200	0 48 42	.02008	2.8331			9. 9	89.1	
						7. 5		93.0	

Table, containing the Particulars of the Measurement, continued.

No. of the Hy- pothenuse.	Length of each in feet.	Angles of		Deductions from each Hy- pothenuse.	Perpendicular.		Comment- ment from the last.		Mean of 5 Thermometers.	REMARKS.	
		E° & D°			Ascents.	Descents	Above inches	below inches			
46	500	0° 9	27	.00114	feet	feet			6.75	71.6	
47	200	1 10	46.5	.04259		0.8247			8.5	81	
48	500	2 00	15	.30587		4.1172			5.8	88.6	
49	100	0 42	30	.05056		17.4860	15. 2			80.8	
50	500	0 11	47	.00177		4.9450	11. 9			82.1	
51	200	0 16	30	.00250	0.9599	1 0283	13. 9			80.8	
52	500	2 8	27	.20940	11.2067		11. 7			89.1	
53	500	1 18	31.5	.11437	10.6929			10. 4		90.8	
54	400	0 51	43.5	.05428	6.0182			5.		74	
55	200	0 32	31.5	.00696		1.8922		17.		88.9	
56	400	1 58	9	.16300		11.4178		8. 3		94.2	
57	500	2 33	58.5	.30087		13.4323	0. 3			91.2	
58	200	0 54	24	.02504		3.1647	5. 5			82.2	
59	200	0 52	3	.00868	1.8645		23. 8			71.8	
60	600	1 58	15	.34490	20.6344		12. 8			84.7	
61	600	1 51	25.5	.31514	19.4459			8. 6		95.2	
62	700	1 26	27	.22131	17.6012			4. 5		91.9	
63	500	0 58	16.5	.03100	5.5667			14		89.8	
64	800	0 6	14	.00128		1.4505		9. 2		79.6	
65	400	0 27	27	.01276		3.1939	7. 5			87.8	
66	500	1 13	4.5	.11300		10.6273		6. 2		78	
67	400	1 42	4.5	.17630		11.8752		12		86.7	
68	500	2 26	30	.45395		21.3011	8. 6			79.5	
69	200	0 14	3	.00167		0.8174	18			71.7	
70	200	0 36	16.5	.01113	2.1103		3. 8			79.1	
71	300	2 16	36	.21281	11.9174		25			94.9	
72	900	1 47	22	.09752	6.2453			2. 3		84.3	
73	400	1 11	43.5	.18208	8.3450		21. 2			72.4	
74	900	0 41	11	.06453	10.7815		4. 9			87.6	
75	300	0 35	13	.01573		3.0739		11		76.8	
76	200	1 1	43	.03222		3.5903	0. 5			76.8	
77	300	0 6	24	.00053	0.5585		2.75			77.6	
78	200	2 23	45	.17483	8.3606			7. 5		87	
79	400	1 3	28.5	.06820	7.3852		26. 5			87.8	
80	800	0 32	13	.03512		7.4971		22. 1		80.2	
81	700	0 22	59	.01568	4.6799		14.37			70.7	
82	600	0 47	22	.05697	8.2668		11			74.6	
83	400	0 59	35	.06008	6.9325		11.55			83	
84	400	1 3	20	.06788	7.3687		7. 1			79	
85	300	0 10	00	.00126	0.8727			3. 6		76.7	Completed 11th July.

Descent from the termination of the }
base to the ground, } 34

39800 | 6.63475 | 307.7304 | 278.4189 | 514.32 | 389.2 | 83.1

North above the South extremity of the base = 39.74 feet.

At the commencement the old chain exceeded the new one 15.47 divisions of the micrometer = 0.00619 feet. Therefore 398×100.00619 feet will be the measure in terms of the new chain, - - - - -	<i>Feet.</i> 39802.4636
At the conclusion the old chain exceeded the new one 17.9 divisions, and had therefore increased 2.43 divisions = 0.00097 feet. Hence $398 \times \frac{0.00097}{2} = 0.1930$ feet, is the correction for the wear, which add, - - - + 0.1930	
The sum of the deductions from col. 4th is 6.63475 feet, which being increased in the ratio of 100 to 100.00619 will be 6.6351 feet, which subtract, - - - - -	- 6 6351
Hence the apparent horizontal distance will be - - -	39796.0215
The correction for the expansion and reduced to the standard temperature of 62° will be	
$\frac{(83.1 - 50) \times 0.0074 - (62 - 50) \times 0.01237}{12} \times 39796.$	
0215 feet, which add, - - - - -	+ 3.1996
Hence the corrected measure of the base for the temperature of 62° will be - - - - -	39799.2211
To which add the correction for reducing all the hypotenuses to the level of the S. end of the base, - - -	+ 0.0893
	39799.3104
Which being reduced to the level of the sea will be -	<u>39793.7</u>

III. TRIANGLES.

Hanandamulla from Pilloor Hill 110381.9							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
45	Hanandamulla,	98° 13' 33".6	—1".8			98° 13' 31".5	
	Pilloor Hill,	42 59 08	—0 7			42 59 7	
	Kylasghur,	38 47 22 .4	—0 .6			38 47 21 .5	
		180 00 04		3" 1	+0 .9	180 00 00	
	Kylasghur from { Hanandamulla,						120135
{ Pilloor Hill,						174387.3	
Hanandamulla from Kylasghur 120128							
46	Hanandamulla,	98 13 33.6	—1.8			98 13 31.5	
	Kylasghur,	38 47 22.4	—0.6			38 47 21.5	
	Pilloor Hill,	42 59 8	—0.7			42 59 7	
		180 00 04		3.1	+0.9	180 00 00	
	Pilloor Hill from { Hanandamulla,						110375.6
{ Kylasghur,						174377.3	
Kylasghur from Pilloor Hill 174382.3							
47	Kylasghur,	86 12 27.96	—3.7			86 12 24.25	
	Pilloor Hill,	50 13 26.32	—2.14			50 13 24.25	
	Patticondah, .....	.	.			43 34 11.5	
						180 00 00	
	Patticondah from { Kylasghur,						194447.4
{ Pilloor Hill,						252452.9	

ACCOUNT OF TRIGONOMETRICAL TRIANGLES—CONTINUED.

Kylasghur from Pilloor Hill 174382.3							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
48	Kylasghur,	35° 25' 37".05	—0".8			35° 25' 35".5	
	Pilloor Hill,	50 36 21.07	—0.7			50 36 20.5	
	Bodeemulla,	93 58 6.45	—1.7			93 58 4	
		180 00 4.57		3".2	+1'.37	180 00 00	
	Bodeemulla from { Kylasghur,						135085.8
	{ Pilloor Hill,						101325.0
Kylasghur from Bodeemulla 135085.8							
49	Kylasghur,	50 46 50.91	—1.3			50 46 48.75	
	Bodeemulla,	85 23 40.3	—2.2			85 23 37.25	
	Patticondah,	43 49 36.2	—1.3			43 49 34	
		180 00 7.41		4.5	+2.61	180 00 00	
	Patticondah from { Kylasghur,						194447.6
	{ Bodeemulla,						151121.8
Kylasghur from Patticondah 194447.5							
50	Kylasghur,	36 15 24.6	—1.5			36 15 25	
	Patticondah,	101 21 48.77	—4.8			101 21 45.75	
	Yerracondah,	42 22 48.97	—1.4			42 22 49.25	
		180 00 2.34		7.7	—5.34	180 00 00	
	Yerracondah from { Kylasghur,						282822.5
	{ Patticondah,						170607.3

Triangles taken up at the Base, and continued back to Berracoodah and Kyalasbur.

<i>N. end of the Base from the S. end of the Base 39793.7</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
51	N. end of the Base,...	89° 19' 20".75	—0".12			89° 19' 20"	
	S. end of the Base,....	33 44 0 .06	—0 .06			33 43 59.3	
	Muntapum Station,...	56 56 41 .42	—0 .06			56 56 40.7	
		180 00 02 .23		0".24	+1" 99	180 00 00	
Muntapum Station from							
{ N. end of the Base,.....							26365.95
{ S. end of the Base,.....							47475.03
<i>S. end of the Base from Muntapum Station 47475.03</i>							
52	S. End of the Base,...	106 9 37.72	—0 .33			106 9 35.9	
	Muntapum Station,...	35 3 56.05	—0 .08			35 3 54.5	
	Bonnairegottah,	38 46 31.15	—0 .07			38 46 29.6	
		180 00 04.92		0.47	+4.45	180 00 00	
Bonnairegottah from							
{ S. end of the Base,.....							43551.7
{ Muntapum Station,.....							72811.7
<i>Muntapum Station from Bonnairegottah 72811.7</i>							
53	Muntapum Station,...	97 26 53.39	—1 .07			97 26 53.9	
	Bonnairegottah,	51 7 54.62	—0 .37			51 7 54.2	
	Tirtapully Hill,	31 25 16.15	—0 .41			31 25 11.9	
		180 00 4.16		1.85	+2.31	180 00 00	
Tirtapully Hill from							
{ Muntapum Station,.....							108746.8
{ Bonnairegottah,.....							158492.9

TRIANGLES—CONTINUED.

<i>Bonnairgottah from Tirtapully Hill 138492.9</i>							
No.	TRIANGLES.	Obed. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
54	Bonnairgottah,	51° 5' 56".91	—0".4			51° 5' 56".5	
	Tirtapully Hill,	31 25 8 .96	—0 .4			31 25 9	
	Muntapum Centre,...	97 28 53 .27	—1 .1			97 28 54 .5	
		180 00 01 .14		1'.9	—0'.76	180 00 00	
Muntapum Centre from							
{ Bonnairgottah,							72815.6
{ Tirtapully Hill,							108705.1
<i>Muntapum Centre from Bonnairgottah 72815.6</i>							
55	Muntapum Centre,....	69 50 46.5	— 0.6			69 50 46	
	Bonnairgottah,	70 52 23.91	— 0.6			70 52 23.5	
	Savendroog Station,...	39 16 50.88	— 0.5			39 16 50.5	
		180 00 01.29		1.7	—0.41	180 00 00	
Savendroog from							
{ Muntapum Centre,							108661.6
{ Bonnairgottah,							107968.7

WITH the sides *Muntapum* centre from *Tirtapully* hill 108705.1 feet, and *Muntapum* centre from *Savendroog* = 108661.6 feet, and the included angle at *Muntapum* = $167^{\circ} 19' 29''.3$ the side *Savendroog* from *Tirtapully* hill is found = 216038.9 feet.

AGAIN with the sides *Bonnairgottah* from *Tirtapully* hill 138492.9 feet, and *Bonnairgottah* from *Savendroog* = 107968.7 feet, and the included angle at *Bonnairgottah* = $121^{\circ} 58' 19''$ the side *Savendroog* from *Tirtapully* hill is found = 216038.8 feet, differing from the above $\frac{1}{12}$ of a foot, and of which the mean is 216038.85 feet.

TRIANGLES—CONTINUED.

Savendroog from Tirtapully Hill 216038.85								
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.	
56	Savendroog,.....	43° 36' 47".5	—1".9			53° 36' 45".5		
	Tirtapully Hill,.....	46 42 24 .5	—1 .9			46 42 22 .5		
	Deorabetta,.....	79 40 52 .9	—2 .8			79 40 52		
		180 00 04 .9		6".6	—1".7	180 00 00		
	Deorabetta from { Savendroog,.....						159628.8	
		{ Tirtapully Hill,.....						176775.8
57	Savendroog,.....	37 44 43.15	—1.9			37 44 41.25		
	Tirtapully Hill,.....	70 48 41.9	—2.4			70 48 42.5		
	Nandydroog,.....	71 26 36.55	—2.4			71 26 36.25		
		180 00 03.6		6.7	—3.1	180 00 00		
	Nandydroog from { Savendroog,.....						215226.3	
		{ Tirtapully Hill,.....						139499.8
Tirtapully Hill from Nandydroog 139499.8								
58	Tirtapully Hill,.....	51 31 44.03	—1.0			51 31 43		
	Nandydroog,.....	56 23 44	—1.0			56 23 42.5		
	Rymandroog,.....	72 4 35.47	—1.2			72 4 34.5		
		180 00 3.5		3.15	+ .35	180 00 00		
	Rymandroog from { Tirtapully Hill,.....						122112.3	
		{ Nandydroog,.....						114788.1

ACCOUNT OF TRIGONOMETRICAL
TRIANGLES—CONTINUED.

Tirtapully Hill from Rymandroog 122112.3							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Tirtapully Hill,	93° 5' 51".3	—2".13			93° 5' 49"	
	Rymandroog,	49 22 54.58	—1.04			49 22 53	
	Yerracondah,	37 31 19.33	—1.03			37 31 18	
		180 00 5.21		4".2	+1".01	180 00 00	
	Yerracondah from { Tirtapully Hill,						152185.5
{ Rymandroog,						200199.8	
Tirtapully Hill from Deorabetta 176775.8							
60	Tirtapully Hill,	97 51 18.04	—3.65			97 51 14.4	
	Deorabetta,					37 20 51.1	
	Yerracondah,	44 47 55.83	—1.28			44 47 54.5	
						180 00 00	
	Yerracondah from { Tirtapully Hill,						152197.5
{ Deorabetta,						248529.3	
61	Tirtapully Hill,	59 35 8.79	—1.76			59 35 7	
	Deorabetta,	52 10 4.37	—1.67			52 10 2.6	
	Ankissgherry,					68 14 50.4	
						180 00 00	
	Ankissgherry from { Tirtapully Hill,						150322.7
{ Deorabetta,						164136.3	

TRIANGLES—CONTINUED.

Tirtapully Hill from Ankissgherry 150322.7							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
62	Tirtapully Hill,	58° 16' 9".25	—0'.9			58° 16' 8".25	
	Ankissgherry,	69 50 35 .4	—1 .2			71 53 17.5	
	Yerracondah,					69 50 34.25	
						180 00 00	
	Yerracondah from { Tirtapully Hill,						152196.3
{ Ankissgherry,						99177.5	
Tirtapully Hill from Yerracondah 152196.9							
63	Tirtapully Hill,	93 5 51.3	—2.13			93 5 49	
	Yerracondah,	37 31 19.38	—1.03			37 31 18	
	Rymandroog,	49 22 54.58	—1.04			49 22 53	
		180 00 05.26		4'.2	+1.06	180 00 00	
	Rymandroog from { Tirtapully Hill,						122121.2
{ Yerracondah,						200214.3	

THE side from *Tirtapully* hill to *Yerracondah* is the mean distance found in the triangles *Tirtapully* hill, *Deorabetta*, and *Yerracondah* and *Tirtapully* hill, *Ankissgherry* and *Yerracondah*.

Yerracondah from Rymandroog 200214.3							
64	Yerracondah,	78 25 51.06	—3.3			78 25 47.75	
	Rymandroog,	45 11 51.7	—2 .4			45 11 52	
	Patticondah,	56 22 20.37	—2 .4			56 22 20.25	
		180 00 3.19		7.9	—4.77	180 00 00	
	Patticondah from { Yerracondah,						170605.9
	{ Rymandroog,						235558.9

TRIANGLES—CONTINUED.

Yerracondah from Patticondah 170605.9							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
	Yerracondah,.....	42° 22' 48" .97	—1" .4			42° 22' 49" 25	
	Patticondah,.....	101 21 48 .77	—4 .8			101 21 45.75	
	Kylasghur,.....	36 15 24 .6	—1 .5			36 15 25	
		180 00 2 .34		7" .7	—5" .36	180 00 00	
Kylasghur from							
{ Yerracondah,.....							282820.3
{ Patticondah,.....							194445.9

SECTION II.

SERIES of triangles direct from the Base near *Bangalore*, to *Mangalore* on the *Malabar* coast.

IV. ANGLES.

At Dodagoontah Station.

Between	And		
Bonnairgottah,	Savendroog,	61° 34' 54"	} 51" .20
		50	
		49	
		55	
		50	
Referring Lamp,	Savendroog,	104 4 29.68	
	Pole-star's W. elongation, 1 31	53	
		56.25	
		51.25	
		48.5	
		46.25	
		47.5	
		45.5	
		45.5	
		43.5	
		44.5	

OPERATIONS IN THE PENINSULA.

323

At Savendroog.

Between	And		
Deorabetta,	Bandhully Hill,	44 41 41.25	
		40.5	40.93
		40.75	
		41.5	
		40.25	
		41.75	
		40.5	
Devaroydroog,	Nundydroog,	50 14 6.75	
		7.	6.37
		5.25	
		3.5	
		7.25	
		8.5	
Cheetkul Hill,	Devaroydroog,	6 56 11.33	
		10.83	13.43
		16.58	
		16.33	
		12.08	
Devaroydroog,	Bomanelly Hill,	51 25 1.75	
		2	2.19
		2.5	
		2.25	
Bomanelly Hill,	Mullapunnabetta,	28 47 59.91	
		61.16	62.35
		63.66	
		64.66	
Bandhully Hill,	Mysoor Hill,	47 6 38.6	
		34.1	39.68
		33.35	
Mysoor Hill,	Mullapunnabetta,	46 23 6.34	
		5.84	6.26
		6.59	
Referring Lamp,	Mullapunnabetta,	90 39 58.37	
		59.25	61.16
		60.75	
		61.25	
		62.5	
		61.5	
		61	
		62.25	
		62.75	
		59.25	
		60.5	
		62	
		63.75	

OPERATIONS IN THE PENINSULA.

343

At Bommanelly Hill, continued.

<i>Between</i>	<i>And</i>		
Hytaloo Flag,	Savendroog,	70 9 19.75	} 19'.94
		19.75	
		19	
		21.5	} 24.34
Referring Flag,	Mullapunnabetta,	86 15 22.75	
		26.5	
		24	
		21.12	} 38.78
	Dacsaunceegooda,	131 4 38.12	
		39.75	
		37.25	
		40	
Hytaloo Flag,	Mullapunnabetta,	175 40 1	
	Savendroog,	70 9 19.94	
Mullapunnabetta,	Savendroog,	105 30 41.06	
Referring Flag,	Mullapunnabetta,	86 15 24.34	
	Dacsaunceegooda,	131 4 38.78	
Dacsaunceegooda,	Mullapunnabetta,	44 49 14.44	
Dacsaunceegooda,	Mullapunnabetta,	44 49 15.87	} 14.90
		12.5	
		14.88	
		16.37	
Ditto,	Do. by the Referring Lamp,		14.44
		Mean	14.67

At Mullapunnabetta.

Referring Flag,	Bomanelly Hill,	143 22 60.5	} 60.25
		59.5	
		60.75	
		63	
		58	
		61	
		59	

At Mullappunnabetta, continued.

<i>Between</i>	<i>And</i>		
Referring Flag,	Balroyndroog,	96° 36' 45"	} 46".3
		46.25	
		44	
		49.25	
		44.75	
		48	
		45.25	
		47.5	
		45.75	}
		44.25	
Referring Flag,	Bomanelly Hill,	143 23 00.25	
	Savendroog,	97 41 34.36	
Bomanelly Hill,	Savendroog,	45 41 25.89	
Referring Flag,	Mysoor Hill,	37 59 12.58	
	Savendroog,	97 11 34.36	
Savendroog,	Mysoor Hill,	59 42 21.78	
Referring Flag,	Bomanelly Hill,	143 23 00.25	
	Daesaunergooda,	150 36 33.6	
Bomanelly Hill,	Daesaunergooda,	66 00 26.15	
Referring Flag,	Daesaunergooda,	150 36 33.6	
	Koondoor Hill,	71 37 22.94	
Daesaunergooda,	Koondoor Hill,	78 59 10.66	
Referring Flag,	Daesaunergooda,	150 36 33.6	
	Koondhully Hill,	55 38 44.68	
Daesaunergooda,	Koondhully Hill,	94 57 48.92	
Hannabetta,	Koondhully Hill,	45 32 00 65	
Hannabetta,	Daesaunergooda,	49 25 48.27	
Referring Flag,	Koondoor Hill,	71 37 22.94	
	Koondhully Hill,	55 38 44.68	
Koondoor Hill,	Koondhully Hill,	15 58 38 26	
Hannabetta,	Koondhully Hill,	45 32 00.65	
Hannabetta,	Koondoor Hill,	29 33 22.39	
Referring Flag,	Koondhully Hill,	55 38 44.68	
	Balroyndroog,	96 36 46.3	
Koondhully Hill,	Balroyndroog,	40 58 1.62	

*At Mullapunnabetta, {continued.**Between**And*

Referring Lamp, . . . Pole-star's greatest W. elongation } 170° 43' 15".25

18

18.37

19.13

19.38

~~20~~

19.62

20

19.25

19.25

170 43 49

48.25

48.13

47.75

49.25

48.2

48.5

50.25

At Bundhully.

Savendroog,	Deorabetta,	37 30 28.5	}	30."12
		31.75		
	Mysoor Hill,	80 2 42.44	}	44.19
		45.94		

At Cheethul Hill.

Savendroog,	Devaroydroog,	134 39 45.13	}	45.16
		48 48 46.95		
		44.25		
		47		

At Mysoor Hill.

Referring Flag,	Bundhully Hill,	55 26 46	}	45.22
		45.75		
		43.9		
	Savendroog,	108 17 44	}	45.19
		43.75		
		46		
		47		

At Mydoor Hill, continued.

<i>Between</i>	<i>And</i>		
Referring Flag,	Mullapunnabetta, ...	177° 47' 26"	} 26".5
		25.45	
		27.89	
		28.5	
		27	
		27.5	
		25.25	
		25.5	
		25.43	
Referring Flag,	Bundhully Hill,	55 26 45.22	
	Savendroog,	108 17 45.19	
Bundhully Hill,	Savendroog,	52 50 59.97	
Referring Flag,	Savendroog,	108 17 15.19	
	Mullapunnabetta,	177 47 26.5	
Savendroog,	Mullapunnabetta, ...	73 54 48.31	

At Daesauneegooda.

Mullapunnabetta,	Bomanelly Hill,	69 10 25.38	} 25.94
		26.5	
	Hannabetta,	89 54 5.63	} 6
		5	
		7.37	} 21.93
	Koondoor Hill,	47 3 26.5	
		23.37	} 40.37
Hannabetta,	Koondoor Hill,	42 50 41.62	
		39.15	

At Koondoorbetta.

Mullapunnabetta,	Daesauneegooda,	53 57 29	} 31.17
		32.75	
		31.75	
	Hannabetta,	119 34 16.25	} 16.25
	Balroyndroog,	141 10 47.5	
		47	} 47.25
Koondhully Hill,	Balroyndroog,	75 12 19	
		15.75	} 17.37
Mullapunnabetta,	Balroyndroog,	141 10 47.25	
	Hannabetta,	119 34 16.25	
Balroyndroog,	Hannabetta,	21 36 31	

ACCOUNT OF TRIGONOMETRICAL

At Koondoorbetta, continued.

<i>Between</i>	<i>And</i>	
Mullapunnabetta,	Dacsaunergooda,	52 57 31".17
	Hannabetta,	119 34 16.25
Dacsaunergooda,	Hannabetta,	65 36 45.08
Mullapunnabetta,	Balroyndroog,	141 10 41.25
Koondhully Hill,	Balroyndroog,	75 12 17.37
Mullapunnabetta,	Koondhully Hill,	143 36 55.38

At Koondhully Hill.

Koondoorbetta,	Bettatipoor Hill,	78 18 11.5	} 12'.08
		10.75	
		14	
Mullapunnabetta,	Bettatipoor Hill,	57 53 42.5	} 41.44
		41	
		42.5	
	Balroyndroog,	99 12 39.75	} 22.25
		24.25	
		22.25	
Koondoorbetta,	Bettatipoor Hill,	78 18 12.08	} 35
Mullapunnabetta,	Bettatipoor Hill,	57 53 41.44	
Mullapunnabetta,	Koondoorbetta,	20 24 30.64	

At Hannabetta.

Dacsaunergooda,	Koondoorbetta,	71 32 35	} 35
		35	
Koondoorbetta,	Balroyndroog,	136 19 19.87	} 17.37
		14.88	

At Balroyndroog.

Referring Flag,	Bullannully Hill,	169 57 5.13	} 4.41
		6.37	
		3.75	
		2.37	
	Koondhully Hill,	88 44 51	} 52.75
		54.5	

At Balroyndroog, continued.

<i>Between</i>	<i>And</i>	
Referring Lamp,	Pole-star's W. elongation, 56° 46'	48".5
		43.75
		43.25
		43
		44.5
		44.25
		43.44
Referring Flag,	Koondhully Hill,	88 44 52.75
	Bullamully Hill,	169 57 4.41
Koondhully Hill,	Bullamully Hill,	81 12 11.66

At Bullamully.

Koondhully Hill,	Balroyndroog,	57 46 30	} 30'.42
		29.25	
		27.25	
		31.5	
		31.75	
		32.75	} 13.5
Balroyndroog,	Kunnoor Hill,	118 21 13.5	
	Bullanaudgooda,	80 53 15.75	
		22	
		21.75	
		17.25	} 19.19
Bullanaudgooda,	Goompay Hill,	79 17 39	
		43.13	
		44.37	} 42.17
Goompay Hill,	Kuddapoonabetta,	89 14 44.17	
		41.13	
		39.38	} 41.56
Meejar Hill,	Kuddapoonabetta,	84 37 35.25	
		30.5	
Balroyndroog,	Mangalore,	123 11 27.75	} 32.87
		25.5	
		24.5	
Kunnoor Hill,	Balroyndroog,	118 21 13.5	} 25.92
Bullanaudgooda,	Balroyndroog,	80 53 19.19	
Kunnoor Hill,	Bullanaudgooda,	160 45 27.31	
	Goompay Hill,	79 17 42.17	
Goompay Hill,	Kunnoor Hill,	81 27 45.14	
	Kuddapoonabetta,	89 14 41.56	
Kunnoor Hill,	Kuddapoonabetta,	7 40 56.42	
Balroyndroog,	Bullanaudgooda,	80 53 19.19	
Bullanaudgooda,	Goompay Hill,	79 17 42.17	

At Bullamully, continued.

<i>Between</i>	<i>And</i>	
Balroyndroog,	Goompay Hill,	160° 11' 1".96
	Mangalore,	123 11 25.99
Goompay Hill,	Mangalore,	76 57 32.72
Balroyndroog,	Kunnoor Hill,	148 21 13.5
Kunnoor Hill,	Kuddapoonabetta,	7 46 56.42
Kuddapoonabetta,	Balroyndroog,	110 34 17.08
Meejar Hill,	Kuddapoonabetta,	34 57 32.67
	Balroyndroog,	75 56 44.21

At Ungargooda.

Balroyndroog,	Bullamully Hill,	91 20 62.25	} 60°.75
		59.25	
		59.5	
		62	
Bullamully Hill,	Meejar Hill,	126 11 27.5	} 27.88
		25.75	
		30.25	
		28	
Meejar Hill,	Booggargooda,	28 59 12.75	} 10.25
		13	
		9	
		6.25	

At Booggargooda.

Bullamully Hill,	Meejar Hill,	113 5 40.75	} 43.08
		43.25	
		41	
		44	
		45.75	
		44	
		41	
		44.75	} 55.5
	Ungargooda,	21 3 58	
		55	
		54	
		55.75	
		56.5	
Bullamully Hill,	Meejar Hill,	113 5 43.08	
	Ungargooda,	21 3 55.5	
Meejar Hill,	Ungargooda,	134 9 38.58	

At Meejar Hill.

<i>Between</i>	<i>And</i>		
Bullamully Hill,	Booggargooda,	54° 37' 20".62	18'.67
		17.88	
		17.5	
	Kuddapoonabetta,	49 7 52	59'.67
		52.25	
		56.75	
Kuddapoonabetta,	Kooliebogooda, ..	37 55 18.5	19.94
		19.75	
		20.25	
		21.25	

At Kuddapoonabetta.

Bullamully Hill,	Meejar Hill,	96 14 31.5	31.37
		31.25	
	Kunnoor Hill,	48 38 44.25	
		46.75	45.5
Kooliebogooda,	Meejar Hill,	58 24 55.25	
		57.75	
		55	56.69
		58.5	
	Lodgah Station,	86 11 35.5	
		30	32.08
		30.75	

At Kunnoor Hill.

Bullamully Hill,	Kuddapoonabetta,	123 34 21.25	21.12
		21	

V. TRIANGLES.

<i>Bonnairgottah from Savendroog 107968 7</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
66	Bonnairgottah,	83° 20' 16".17	—0".79			83° 20' 15 .4	
	Savendroog,					35 4 53 .8	
	Dodagoontah Station, .	61 34 51.29	—0.52			61 34 50 .8	
						180 00 00	
Dodagoontah Station from		{ Bonnairgottah,					70556.7
		{ Savendroog,					121933.2

ACCOUNT OF TRIGONOMETRICAL TRIANGLES—CONTINUED.

Savendroog from Deorabetta 159828.8							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
67	Savendroog,.....	44° 41' 40".93	—1".4			44° 41' 39".5	
	Deorabetta,.....	97 47 57.75	—4 .0			97 47 52	
	Bundhully,.....	37 30 30.12	—1 .5			37 30 28.5	
		180 00 08.8		6".9	+1".9	180 00.00	
	Bundhully from { Savendroog,.....						260072
						{ Deorabetta,	184620.5
Savendroog from Nundydroog 215226.3							
68	Savendroog,.....	50 14 6.37	—1.9			50 14 4.3	
	Nundydroog,.....	49 53 53.48	—1.9			49 53 51.6	
	Devaroydroog,	79 52 8.45	—2.8			79 52 4.1	
		180 00 8.3		6.54	+1.76	180 00 00	
	Devaroydroog from { Savendroog,.....						167233.7
						{ Nundydroog,	168058.8
Savendroog from Deorabetta 159828.8							
69	Savendroog,.....	78 57 47.5	—2 .26			78 57 45 .1	
	Deorabetta,.....	47 20 38.73	—1 .55			47 20 37	
	Allasoor Hill,.....	53 41 30.59	—1 .69			53 41 37 .9	
		180 00 05.82		5.4	+0.42	180 00 00	
	Allasoor Hill from { Savendroog,.....						145859.1
						{ Deorabetta,	194662.8

TRIANGLES—CONTINUED.

<i>Savendroog from Allasoor Hill 145859.4</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
70	Savendroog,	55° 11' 34".92	-1'.3			55° 11' 32".6	
	Allasoor Hill,	62 10 43.71	-1'.4			62 10 41.5	
	Cheetkul Hill,	62 7 47.87	-1'.4			62 7 15.7	
		180 00 06.5		4".2	+2'.3	180 00 00	
	Cheetkul Hill from { Savendroog,						115921.8
	{ Allasoor,						136292.3
<i>Savendroog from Cheetkul Hill 145924.8</i>							
71	Savendroog,	6 56 13.43	+0 04			6 56 12.5	
	Cheetkul Hill,	134 49 45.16	-2			134 49 42.5	
	Devaroydroog,	38 14 4.75	+1.26			38 14 5	
		180 00 3.94		0.7	+2 64	180 00 00	
	Devaroydroog from { Savendroog,						167221.8
	{ Cheetkul Hill,						28477.0
<i>Savendroog from Devaroydroog 167229.25</i>							
72	Savendroog,	51 25 2.12	-2'.1			51 25 00	
	Devaroydroog,	89 33 44.01	-4'.1			89 33 40	
	Bomanelly Hill, .....	. . .				39 1 20	
						180 00 00	
	Bomanelly Hill from { Savendroog,						265594.9
	{ Devaroydroog,						207622.1

TRIANGLES—CONTINUED.

Savendroog from Mullapunnabetta 357641.2							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
76	Savendroog,.....	28° 48' 2'.35	—2'			28° 48' 00".4	
	Mullapunnabetta,	45 41 25.37	—1.3			45 41 26	
	Bomanelly Hill,.....	105 30 41.06	—7.5			105 30 33.6	
		180 00 8.78		10' 8	—2'.02	180 00 00	
	Bomanelly Hill from { Savendroog,						265592.8
						{ Mullapunnabetta,	178807.7
Savendroog from Mullapunnabetta 357641.2							
77	Savendroog Station, ..	46 23 6.26	—5.7			46 23 0.5	
	Mullapunnabetta,	59 42 21.78	—6.3			59 42 15.5	
	Mysoor Hill,	73 54 48.31	—7.7			73 54 44	
		180 00 16.35		19.7	—3.35	180 00 00	
	Mysoor Hill from { Savendroog Station,.....						321987.6
						{ Mullapunnabetta,.....	269477.5
Mullapunnabetta from Bomanelly 178807.7							
78	Mullapunnabetta,	66 00 26.15	—1.3			66 0 23.8	
	Bomanelly Hill,	44 49 14.67	—1.5			44 49 12.7	
	Dacsauneegooda,.....	69 10 25.94	—1.9			69 10 23.5	
		180 00 06.76		5.2	+1.56	180 00 00	
	Dacsauneegooda from { Mullapunnabetta,.....						134849.9
						{ Bomanelly Hill,	174777.4

TRIANGLES—CONTINUED.

Mullapunnabetta from Daesauneegooda 134849.9							
No.	TRIANGLES.	Obs'd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
79	Mullapunnabetta,.....	49° 25' 48" 27	—1".25			49° 25' 47"	
	Daesauneegooda,.....	89 54 6.00	—2 .37			89 54 3.6	
	Hannabetta,.....	. . .				40 40 09.4	
						180 00 00	
	Hannabetta from { Mullapunnabetta,.....							206922.5
{ Daesauneegooda,.....						157180.4	
Mullapunnabetta from Hannabetta 206922.5							
80	Mullapunnabetta,.....	29 33 22.30	—0.02			29 33 22.4	
	Hannabetta,.....					30 53 24.2	
	Koondoor Hill,.....	119 34 16.25	—2.80			119 34 13.4	
						180 00 00	
	Koondoor Hill from { Mullapunnabetta,.....							122081.6
{ Hannabetta,.....						117355.7	
Mullapunnabetta from Daesauneegooda 134849.9							
81	Mullapunnabetta,.....	78 59 10.66	—1 .6			78 59 .9	
	Daesauneegooda,.....	47 9 24.93	—1 .1			47 9 24.8	
	Koondoor Hill,.....	53 57 31.17	—1 .1			53 57 28.6	
		180 0 6.76		3".8	+2".96	180 00 00	
	Koondoor Hill from { Mullapunnabetta,.....							122081.2
{ Daesauneegooda,.....						163700.6	

TRIANGLES—CONTINUED.

Daesauneegooda from Hannabetta 157180.4							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
82	Daesauneegooda,	42° 50' 40".37	—1'.2			42° 50' 40".4	
	Hannabetta,	71 52 55.00	—1.5			71 52 34.7	
	Koondoor Hill,	65 36 42.08	—1.4			65 36 44.9	
		180 00 00.00		4.1	—3' 65	180 00 00	
	Koondoor Hill from { Daesauneegooda,						163701.8
	{ Hannabetta,						117355.7
Hannabetta from Koondoorbetta 117855.7							
83	Hannabetta,	1° 6' 19".17	—3.96			1° 6' 19".14	
	Koondoorbetta,	21 36 31	+0.85			21 36 31.9	
	Balroyndroog,					22 4 11.7	
						180 00 00	
	Balroyndroog from { Hannabetta,						115016
	{ Koondoorbetta,						215698
Mullapunnabetta from Koondoorbetta 122081.4							
84	Mullapunnabetta,	15 58 38.26	+1.07			15 58 39	
	Koondoorbetta,	143 36 55.38	—4.22			143 36 50	
	Koondhully Hill,	20 24 30.64	+1.50			20 24 31	
		180 00 04.28		1.65	+2.63	180 00 00	
	Koondhully from { Mullapunnabetta,						207082.8
	{ Koondoorbetta,						96366.3

THE side *Mullapunnabetta from Koondoorbetta* is the mean distance had from the 80th and 81st triangle.

TRIANGLES—CONTINUED.

Koondoorbetta from Koondhully Hill 96366.3							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
85	Koondoorbetta,.....	75° 12' 17".37	—1".7			75° 12' 15".67	
	Koondhully Hill,.....	. . .				78 48 9.73	
	Balroyndroog,.....	. . .				25 59 34.6	
						180 00 00	
	Balroyndroog from { Koondoorbetta,.....						215698
	{ Koondhully Hill,.....						212592.8
Koondoorbetta from Mullapunnabetta 122081.4							
86	Koondoorbetta,.....	141 10 47.25	—9.41			141 10 37.8	
	Mullapunnabetta,....	. . .				24 59 21.75	
	Balroyndroog,.....	. . .				13 50 00.45	
						180 00 00.00	
	Balroyndroog from { Koondoorbetta,.....						215698
	{ Mullapunnabetta,.....						320094.5
Mullapunnabetta from Koondhully Hill 207682.8							
87	Mullapunnabetta,.....	40 58 01.62	—2 .1			40 57 59.5	
	Koondhully,.....	99 12 22.25	—6 .1			99 12 16.2	
	Balroyndroog,.....	. . .				38 49 44.3	
						180 00 00.00	
	Balroyndroog from { Mullapunnabetta,.....						320075
	{ Koondhully Hill,.....						212584.2

TRIANGLES—CONTINUED.

<i>Koondhully Hill from Balroyndroog 212588.5</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Supplemental Angles.	Error.	Angles for Calculation.	Distance in feet.
88	Koondhully Hill,					11 01' 23".8	
	Balroyndroog,	81 12 11".66	—3".5			81 12 8".2	
	Bullamully,	57 46 30.42	—2".4			57 46 28	
						180 00 00	
Bullamully from { Koondhully Hill,							248343.2
{ Balroyndroog,							161944.6

THE side *Koondhully hill* from *Balroyndroog* is the mean distance found in the 85th and 87th triangle.

<i>Balroyndroog from Bullamully 164944.6</i>							
89	Balroyndroog,					28 44 41.5	
	Bullamully,	59 54 19.97	—0".6			59 54 19.2	
	Ungargooda,	91 21 00.75	—1".4			91 20 59.3	
						180 00 00	
Ungargooda from { Balroyndroog,							142749.3
{ Bullamully,							79345.5

THE supplemental chord angle at *Bullamully*, between *Meejar hill* and *Ungargooda*, corrected, is subtracted from the observed angle between *Balroyndroog* and *Meejar hill*, to get the angle at *Bullamully*, between *Balroyndroog* and *Ungargooda*, as an observed one.

ACCOUNT OF TRIGONOMETRICAL TRIANGLES—CONTINUED.

<i>Bullamully from Ungargooda 79345.5</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
90	Bullamully,					16° 02' 21".8	
	Ungargooda,	126 11' 27".88	—0".7			126 11 27.2	
	Meejar Station,	37 46 8.19	+0.2			37 46 08	
						180 00 00 00	
	Meejar Station from { Bullamully,						104550.2
	{ Ungargooda,						35795.8

At Meejar hill, the supplemental chord angle between *Booggargooda* and *Ungargooda*, corrected as an observed one, and subtracted from the observed angle between *Booggargooda* and *Bullamully*, gives the angle between *Bullamully* and *Ungargooda* as an observed angle.

<i>Bullamully from Meejar Station 104550.2</i>							
91	Bullamully,.....	31 37 32.87	—0.96			34 37 33.75	
	Meejar Station,	49 07 53.67	—0.27			49 07 54.5	
	Kudapoonabetta,	96 14 31.37	—0.58			96 14 31.75	
		179 59 57.91		1.11	—3.2	180 00 00	
	Kudapoonabetta from			{ Bullamully,		79536	
				{ Meejar Station,		59763	
<i>Bullamully from Kudapoonabetta 79536</i>							
92	Bullamully,.....	7 46 56.42	—0.02			7 46 55.5	
	Kudapoonabetta,	48 38 45.5	+0.17			48 38 44.7	
	Kunnoor Station,	123 34 21.12	—0.33			123 34 19.8	
		180 00 05.04		0.18	+2.86	180 00 00.00	
	Kunnoor Station from			{ Bullamully,.....		71655.7	
				{ Kudapoonabetta,.....		12925.8	

SECTION III.

SOUTHERN series of triangles, commencing from *Mullapunnabetta* and *Mysoor* hill, and continued to the *Malabar* coast, terminating with the distance from *Bullamully* to *Kunnoor* station, which is also brought out by the northern series.

VI. ANGLES.

At Mysoor Hill

<i>Between</i>	<i>And</i>		
Referring Flag,.....	Mullapunnabetta,	177° 47' 26"	
		25.45	} 26".50
		27.89	
		28.5	
		27	
		27.5	
		21.25	
		21.5	
		21.49	
	Bettatipoor Hill,.....	136 06 58.65	} 57.01
		57.42	
		56.25	
		55.73	
Referring Flag,.....	Mullapunnabetta,	177 47 26.50	
	Bettatipoor Hill,.....	136 06 57.01	
Mullapunnabetta,.....	Bettatipoor Hill,.....	41 40 29.49	

At Mullapunnabetta.

Referring Flag,.....	Mysoor Hill,.....	37 59 12	
		10.75	} 12.58
		12.75	
		12.25	
		14	
		10.5	
		12	
		12.25	
		11	
		13.25	
		14.5	
		12.75	
	Bettatipoor Hill,.....	12 26 40.75	} 39.97
		38.5	
		40.5	
		39.5	
		40.75	
		39.25	
		40.75	
		40.5	
		40	
		39.25	

At Mullapunnabetta, continued.

<i>Between</i>	<i>And</i>		
Referring Flag,	Soobramance,	59° 05' 05".25	} 06',
		07.5	
		5.75	
		6.75	
		4.75	
		8	
Referring Flag,	Mysoor Hill,	37 59 12.58	
	Bettatipoor Hill,	12 26 39.97	
Mysoor Hill,	Bettatipoor Hill,	50 25 52.55	
Referring Flag,	Soobramance,	59 5 06	
	Bettatipoor Hill,	12 26 39.97	
Bettatipoor Hill,	Soobramance,	46 38 26.03	

At Bettatipoor Hill.

Mullapunnabetta,	Mysoor Hill,	87 53 46	} 48.67
		50.75	
		49.25	
	Soobramance,	83 35 12.75	} 11.26
		11.5	
		9	
		11.55	
		11.5	
Soobramance,	Taddiandamole,	51 37 49.75	} 52
		52.25	
		54.75	
		49.5	
		53.75	

At Taddiandamole.

Bettatipoor Hill,	Soobramance,	54 50 32.25	} 31.14
		30.5	
		32.75	
		32.5	
		29.75	
		32	
		28.25	
Soobramance,	Mount Delli,	124 57 23	} 22.1
		23.5	
		19.25	
		22.5	
		21.75	

At Mount Dilli.

<i>Between</i>	<i>And</i>		
Kunduddakamully,.....	Taddiandamole,	60° 21' 24".75	} 28'.48
		34.5	
		28	
	Munjuimpuddy,	19 17 8.25	} 9.33
		9.5	
		10.25	

At Kunduddakamully.

Goompay Hill,.....	Annantapoor Hill,	15 56 12	} 10.69
		10.25	
		11.5	
		9	
Backul,	Annantapoor Hill,	37 41 13	} 43.25
		13.5	
		43.25	
Goompay Hill	Ballaupadgooda,	26 11 38.25	} 39.35
		41.25	
		36	
		40.25	
		41	
	Taddiandamole,	151 2 30	} 27
		24	
Munjuimpuddy,.....	Backul,.....	25 44 28.25	} 29.75
		28	
		33	
Goompay Hill,.....	Annantapoor,	15 56 10.69	
Taddiandamole,.....	Goompay Hill,	151 2 27	
Annantapoor,.....	Taddiandamole,	166 58 37.69	
	Backul,	37 41 43.25	
Backul,.....	Taddiandamole,	155 19 39.06	
Annantapoor,.....	Backul,	37 41 43.25	
Goompay Hill,.....	Annantapoor,	15 56 10.69	
Backul,	Goompay,	53 37 53.94	
Taddiandamole,.....	Backul,	155 19 39.06	
Backul,.....	Munjuimpuddy,	25 44 29.75	
Munjuimpuddy,	Taddiandamole,	129 35 9.31	

At Baekul.

<i>Between</i>	<i>And</i>		
Munjuimpuddy,	Mount Dilli,	32° 37' 56".75	57'.67
		57.75	
		58.5	
	Kunduddakamully, ..	32 31 59.75	61.37
		63	
		.	
Goompay Hill,	Annantapoor,	11 45 '56	59.58
		60.75	
		62	
Goompay Hill,	Kunduddakamully, ...	93 36 56.25	55.58
		55.25	
		55.25	
		55.25	
Munjuimpuddy,	Mount Dilli,	32 37 57.67	
	Kunduddakamully, ...	32 32 01.37	
Mount Dilli,	Kunduddakamully, ...	65 09 59.04	

At Munjuimpuddy Hill.

Kunduddakamully,	Mount Dilli,	100 26 09	9.31
		10.5	
		9.25	
		8.5	

At Annantapoor Hill.

Goompay Hill,	Kunduddakamully, ...	107 11 12.5	14.67
		16.25	
		17.25	

At Goompay Hill.

Ballanandgoodn;	Bullamully,	35 09 13.5	14.94
		16.25	
		14	
		16	
	Annantapoor,	140 37 3.75	4.37
		4.75	
		6.5	
		2.5	
	Kunnoor Station,	93 6 48.5	48.25
		50	
		46.25	
Ballanandgoodn,	Bullamully,	35 9 14.94	
	Kunnoor Station,	93 6 48.25	
Bullamully,	Kunnoor Station,	57 57 33.31	

At Bullamully.

<i>Between</i>	<i>And</i>		
Ballanandgooda,	Goompay Hill,	79° 17' 39"	} 42'.17
		43.13	
		44.37	
	Balroyndroog,	80 53 15.75	} 19.19
		92	
		21.75	
		17.95	
Balroyndroog,	Kunnoor Station,	118 21 13.5	
Balroyndroog,	Ballanandgooda,	80 53 19.19	
Ballanandgooda,	Kunnoor Station,	160 45 27.31	
Ballanandgooda,	Goompay Hill,	79 17 42.17	
Goompay Hill,	Kunnoor Station,	81 27 45.14	

VII. TRIANGLES.

Mullapunnabetta from Mysoor Hill 269477.5							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
93	Mullapunnabetta,	50° 25' 52".55	—2".3			50° 25' 40".6	
	Mysoor Hill,	41 40 29.49	—2 .3			41 40 26.6	
	Bettatipoor Hill,	87 53 48.67	—4 .2			87 53 43.8	
		180 00 10.71		8".8	+1" 91'	180 00 00"	
	Bettatipoor Hill from { Mullapunnabetta,						179294.4
						{ Mysoor Hill,	207867.4
Mullapunnabetta from Bettatipoor Hill 179294.4							
94	Mullapunnabetta,	46 38 26.03	—1.98			46 38 24	
	Bettatipoor Hill,	83 35 11.26	—3.23			83 35 8	
	Soobramance, .....	. . .				49 46 28	
						180 00 00"	
	Soobramance from { Mullapunnabetta,						233359.7
						{ Bettatipoor Hill,	170734

ACCOUNT OF TRIGONOMETRICAL TRIANGLES—CONTINUED.

Bettatipoor Hill from Soobramanee 170734

No	TRIANGLES.	Obsd. Angles.	Difference.	Sum of Angles.	Error.	Angles for Calculation.	Distance in feet.
91	Bettatipoor Hill,.....	51° 37' 52"	—1" .9			51° 37' 50".1	
	Soobramanee,.....					73 31 40 .7	
	Taddiandamole,.....	51 50 31.14	—1 .96			51 50 29 .2	
						180 00 00.00	
Taddiandamole from							
						Bettatipoor Hill,.....	200262.2
						Soobramanee Hill,.....	163730.4
Soobramanee Hill from Taddiandamole 163730.4							
92	Soobramanee Hill,.....					49 11 36.6	
	Taddiandamole,.....	71 57 12.54	—2.21			71 57 10.3	
	Kunduddakamully, ..	56 11 14.75	—1.74			56 11 13.1	
						180 00 00	
Kunduddakamully from							
						Soobramanee Hill,	190004.3
						Taddiandamole,.....	149160.2

THE supplemental chord angle at *Taddiandamole*, between *Kunduddakamully* and *Mount Dilli*, reduced as an observed one, is subtracted from the angle *Soobramanee hill* and *Mount Dilli*, as observed at *Taddiandamole*, to give the angle *Kunduddakamully* and *Soobramanee hill*. The station at *Kunduddakamully* could not be seen when the angles were taken at *Taddiandamole*.

Taddiandamole from Kunduddakamully 149160.2

97	Taddiandamole,.....					50 20 8.26	
	Kunduddakamully,...	69 18 26.71	—1.61			69 18 25.10	
	Mount Dilli,.....	60 21 28.08	—1.44			60 21 26.61	
						180 00 00	
Mount Dilli from							
						Taddiandamole,.....	160548.9
						Kunduddakamully,.....	132113

THE supplemental chord angle at *Kunduddakamully*, between *Mount Dilli* and *Munjuimpuddy*, made as an observed angle by applying the correction, and subtracted from the observed angle between *Munjuimpuddy* and *Taddiandumole*, gives the angle *Mount Dilli* and *Taddiandumole* as an observed angle.

TRIANGLES—CONTINUED.

<i>Kunduddakamully from Mount Dilli 132113</i>							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
93	<i>Kunduddakamully</i> , ...	86° 01' 12".35	—1"			86° 01' 11".35	
	<i>Mount Dilli</i> ,					28 48 50.21	
	<i>Baekul</i> ,	65 09 59 04	—0 .6			65 09 58.44	
						180 00 00 00	
<i>Baekul from</i> { <i>Kunduddakamully</i> ,							70162
{ <i>Mount Dilli</i> ,							145223.2

IN this triangle the same supplemental chord angle between *Mount Dilli* and *Munjuimpuddy*, corrected, is added to the observed angle at *Kunduddakamully*, between *Baekul* and *Munjuimpuddy*, to get the observed angle between *Mount Dilli* and *Baekul*.

<i>Kunduddakamully from Baekul 70162</i>							
99	<i>Kunduddakamully</i> , ...	53 37 53.91	—0 .4			53 37 53.54	
	<i>Baekul</i> ,	92 36 52.58	—0 .9			92 36 54.68	
	<i>Goompay Hill</i> ,					33 45 11.78	
						180 00 00.00	
<i>Goompay Hill from</i> { <i>Kunduddakamully</i> ,							126145.9
{ <i>Baekul</i> ,							101681.3

ACCOUNT OF TRIGONOMETRICAL
TRIANGLES—CONTINUED.

Kunduddakamully from Goompay Hill 126145.9							
No.	TRIANGLES.	Obsd. Angles.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
100	Kunduddakamully,	26° 14' 39".35	—0 .6			26° 14' 38".75	
	Goompay Hill,	83 44 30 .21	—0 .7			83 44 29.5	
	Ballanandgooda,					70 00 51.75	
						180 00 00	
	Ballanandgooda from { Kunduddakamully,						133429.4
	{ Goompay Hill,						59355.8
Goompay Hill from Ballanandgooda 59355.8							
101	Goompay Hill,	35 09 14.94	—0.12			35 09 14.8	
	Ballanandgooda,					65 33 02.7	
	Bullamully,	79 17 42.71	—0.16			79 17 42.5	
						180 00 00.00	
	Bullamully from { Goompay Hill,						54990.2
	{ Ballanandgooda,						34781
Goompay Hill from Bullamully 54990.2							
102	Goompay Hill,	57 57 33.31	—0 .28			57 57 33	
	Bullamully,	81 27 45.14	—0 .39			81 27 44.75	
	Kunnoor Station,					40 34 42.25	
						180 00 00.00	
	Kunnoor Station from { Goompay Hill,						83600.1
	{ Bullamully,						71659.4

THE same side *Bullamully* from *Kunnoor* hill brought out down from the northern series is 71655.7 feet: therefore the mean will be 71657.55 feet. Hence, as the side *Bullamully* from *Kunnoor* hill, brought down from the northern series, is to the mean, so is the side *Meejar* hill and *Kudapponabetta*, brought down by the northern series, to 59764.6 feet, as derived from the mean of both series.

TRIANGLES—CONTINUED.

<i>Meejar Hill from Kudapponabetta 59764.6</i>							
No.	TRIANGLES.	Obsd. Angle.	Difference.	Spherical Excess.	Error.	Angles for Calculation.	Distance in feet.
103	Meejar Hill,	57° 55' 19".91	—0" 12			37° 55' 19".8	
	Kudapponabetta,	58 24 56.62	—0.17			58 24 56 .5	
	Kooliebogooda, .....	. . . .				83 39 43 .7	
						180 00 00.00	
	Kooliebogooda from { Meejar Hill,						51224.7
	{ Kudapponabetta,						36956.5

ACCOUNT OF TRIGONOMETRICAL SECONDARY TRIANGLES.

<i>Kudapoonabetta from Kooliebogooda 36956.5</i>				
No.	TRIANGLES.	Obsd. Angles.	Distances from the intersected Objects in Feet.	
	Kudapoonabetta,	56° 11' 32'	{ Eedgah Station,.....	17110.2
	Kooliebogooda,.....	25 28 59		39690.7
	Eedgah Station,.....	68 19 19		
<i>Eedgah Station from Kooliebogooda 39680.7</i>				
	Eedgah Station,.....	66 09 43	{ Station on the Beach,.....	10073
	Kooliebogooda,.....	14 30 24		36782.3
	Station on the Beach, ..	99 19 53		
<i>Bullamully from Goompay Hill 54990.2</i>				
	Bullamully,.....	76 37 33	{ Mangalore,	91763.7
	Goompay Hill,.....	69 16 59		95446.7
	Mangalore,.....	34 05 28		
<i>Bullamully from Kunnoor Station 71659.4</i>				
	Bullamully,.....	4 50 12	{ Mangalore,.....	91761.4
	Kunnoor Station,.....	158 37 57		21234.9
	Mangalore,	16 31 51		
<i>Mount Dilli from Kunduddakamully 132118</i>				
	Mount Dilli,	192 10 39	{ Cannanore,.....	87563.4
	Kunduddakamully,...	18 46 24		201632.7
	Cannanore,.....	29 02 57		
<i>Taddiandamole from Mount Dilli 160548.9</i>				
	Taddiandamole,	31 59 09	{ Cannanore,	157072
	Mount Dilli,	71 49 11.		87574.2
	Cannanore,	76 11 40		
<i>Taddiandamole from Cannanore 157072</i>				
	Taddiandamole,.....	16 51 05	{ Station in Redoubt,	171686.4
	Cannanore,	98 16 45		50294.4
	Station in Redoubt, ..	64 52 10		
<i>Taddiandamole from Station in Redoubt 171686.4</i>				
	Taddiandamole,	1 29 26	{ Tellicherry,	175846.6
	Station in Redoubt, ..	132 52 33		6143.1
	Tellicherry,	46 38 01		

SECTION IV.

Latitude of Dodagoontah Station, with the position of its Meridian.

DODAGOONTAH station is selected as the point of departure in preference to the observatory at *Madras*, as it is nearly in the middle of the *Peninsula*, and its meridian is intended to be carried down to *Cape Comorin*. It has already been extended below the latitude of 11° , and the series of triangles from which it is deduced, being to form the foundation of all the branches which may hereafter be carried to each coast, I have considered it as the properest meridian to which all latitudes and relative longitudes should be referred.

8. ZENITH distances of stars observed at *Dodagoontah*, with their corrections for precession, nutation, aberration, and the semi-annual solar equation, back to the beginning of the year 1805, for determining the latitude of that station.

Observations at Dodagoontah.

α SERPENTIS.

NEAREST POINT ON THE LINE TO $83^{\circ} 8'$.

1805 Month.	Fac.	Obsd. Zenith Distances.	Correc- tion.	Corrctd Zenith Distances.	Thermometers.	
					Upper.	Lower.
July	10. E.	5° 57' 04".49	7".14	5° 56' 57".35	70°	70°
	12. W.	5 56 59.38	6.98	5 56 52.40	73	73
	15. E.	5 57 07.74	6.64	5 57 01.10	79.5	79
	18. W.	5 56 54.73	6.36	5 56 48.37	78	78
	19. E.	5 57 2.64	6.26	5 57 2.38	78	76
	24. W.	5 56 59.24	5.62	5 56 53.62	70.5	70
	26. E.	5 57 05.74	5.66	5 57 00.08	70.5	75
	27. W.	5 56 52.13	5.56	5 56 46.57	72	79
	29. E.	5 56 59.41	5.43	5 56 53.98	72	72
	31. W.	5 56 52.76	5.38	5 56 47.38	75.5	76
1806 June	19. E.	5 56 18.76	19.08	5 56 37.84	73	73
	20. W.	5 56 10.88	19.96	5 56 31.92	73	72
	22. W.	5 56 07.98	19.70	5 56 28.28	70	76
	23. E.	5 56 13.21	19.57	5 56 34.64	73	73
Mean, ..					75.1	75.1

ACCOUNT OF TRIGONOMETRICAL

HERCULIS.

NEAREST POINT ON THE LINE 1° 35' N.

1905 Month.	Face.	Obsd. Zenith Distance.	Correc- tion.	Correct Zenith Distance.	Thermometers.	
					Upper.	Lower.
July 12.	E.	1° 37' 19" .83	0 ⁺ .39	1° 37' 20" .22	68°	69°
16.	E.	1 37 20 .53	0 .97	1 37 20 .26	72.5	73
19.	W.	1 37 37 .14	0 .73	1 37 36 .41	75	76
28.	W.	1 37 35 .88	2 .03	1 37 33 .85	74	74
29.	E.	1 37 22 .55	2 .16	1 37 20 .39	76	76
31.	E.	1 37 23 .16	2 .42	1 37 20 .74	69	68.5
August 2.	W.	1 37 35 .26	2 .66	1 37 32 .60	77.5	77.5
7.	E.	1 37 24 .76	3 .26	1 37 21 .50	71.5	72
8.	W.	1 37 36 .89	3 .37	1 37 33 .52	71.5	71
9.	E.	1 37 25 .56	3 .48	1 37 22 .08	71	71
10.	W.	1 37 36 .79	3 .58	1 37 33 .21	73	73
12.	E.	1 37 24 .76	3 .78	1 37 20 .98	74	74
14.	W.	1 37 37 .87	3 .98	1 37 33 .89	74	74
16.	E.	1 37 27 .06	4 .17	1 37 22 .89	71.5	71
Mean,...					73	73.5

α OPHIUCHI.

NEAREST POINT ON THE LINE 0° 15' S.

July 12.	E.	0 17 14 .49	0 ⁺ .29	0 17 14 .78	69	70	
13.	W.	0 17 03 .10	0 .46	0 17 03 .36	71	72	
15.	E.	0 17 13 .54	0 .77	0 17 14 .31	71	71.5	
19.	E.	0 17 11 .60	1 .43	0 17 13 .03	75	75	
22.	W.	0 16 59 .10	1 .89	0 17 00 .99	74	74	
28.	E.	0 17 10 .74	2 .76	0 17 13 .50	74	74	
29.	W.	0 16 57 .63	2 .89	0 17 00 .52	76.5	76	
30.	E.	0 17 09 .24	3 .02	0 17 12 .26	77	77	
31.	W.	0 16 58 .93	3 .15	0 17 02 .08	69.5	69	
August 7.	E.	0 17 08 .51	4 .02	0 17 12 .53	72	72	
8.	E.	0 16 57 .21	4 .14	0 17 01 .38	71	71	
9.	E.	0 17 09 .09	4 .25	0 17 13 .33	71	71	
10.	W.	0 16 57 .76	4 .36	0 17 02 .12	73	73	
12.	E.	0 17 07 .54	4 .58	0 17 12 .12	73	73	
14.	W.	0 16 53 .12	4 .78	0 16 59 .91	74	74	
17.	E.	0 17 8 .74	5 .07	0 17 13 .81	72.5	72.5	
Mean,...					72.7	72.8	

A Q U I L Æ.

NEAREST POINT ON THE LIMB 2° 50' S.

1805 Month.	Face.	Observed Zenith Distance.	Correc- tion.	Correct Zenith Distance.	Thermometer.	
					Upper.	Lower.
July	12. E.	2° 50' 55" .13	7" .96	2° 51' 03" .09	67.5	68°
	13. W.	2 50 42 .80	8 .17	2 50 50 .97	70	70
	15. E.	2 50 51 .50	8 .57	2 51 0 .07	69	70
	16. W.	2 50 42 .50	8 .77	2 50 51 .27	70	71
	19. E.	2 50 55 .50	9 .36	2 51 4 .86	74	73
	22. W.	2 50 57 .40	9 .94	2 50 47 .34	73	72.5
August	31. E.	2 50 50 .40	11 .58	2 51 1 .98	69	69
	7. W.	2 50 39 .40	12 .76	2 50 52 .16	70	70
	8. E.	2 50 46 .13	12 .92	2 50 59 .05	69.5	70
	9. W.	2 50 40 .75	13 .08	2 50 53 .83	70	70
	10. E.	2 50 49 .50	13 .24	2 51 2 .74	70	70
	12. W.	2 50 38 .33	13 .55	2 50 51 .88	73	72
	13. E.	2 50 48 .63	13 .70	2 51 2 .33	70	70
	17. W.	2 50 38 .30	14 .27	2 50 52 .57	72	72
	20. E.	2 50 49 .00	14 .70	2 51 3 .70	70	70
	30. W.	2 50 38 .20	15 .91	2 50 54 .11	72	72
Mean, ..					70.6	70.6

A T A I R.

NEAREST POINT ON THE LIMB 4° 35' S.

1805 Month.	Face.	Observed Zenith Distance.	Correc- tion.	Correct Zenith Distance.	Thermometer.	
					Upper.	Lower.
July	12. E.	4° 37' 55" .62	8 .49	4° 38' 04" .11	67.5	68
	13. W.	4 37 42 .39	8 .68	4 37 51 .07	70	70
	15. E.	4 37 56 .47	9 .07	4 38 05 .54	69	70
	16. W.	4 37 43 .39	9 .26	4 37 52 .65	70	71
	19. E.	4 37 56 .14	9 .83	4 38 5 .97	73	72.5
	22. W.	4 37 42 .01	10 .41	4 37 52 .42	73	73
August	29. E.	4 37 53 .89	11 .65	4 38 5 .54	74.5	74.5
	30. W.	4 37 40 .39	11 .82	4 37 52 .21	76	76
	31. E.	4 37 51 .84	11 .99	4 38 3 .83	69	69
	7. W.	4 37 40 .96	13 .13	4 37 54 .09	71	71
	8. E.	4 37 48 .37	13 .28	4 38 01 .66	69.5	70
	9. W.	4 37 41 .89	13 .41	4 37 55 .33	70	70
	10. E.	4 37 48 .34	13 .59	4 38 1 .93	70	70
	12. W.	4 37 39 .76	13 .89	4 37 53 .65	73	72.
	13. E.	4 37 48 .17	14 .04	4 38 2 .21	70	70
	17. W.	4 37 41 .86	14 .60	4 37 56 .45	72	72
August	20. E.	4 37 49 .37	14 .99	4 38 4 .36	70	70
	30. W.	4 37 37 .89	16 .46	4 37 54 .05	72	72
Mean, ..					71.1	71.2

ACCOUNT OF TRIGONOMETRICAL

AQUILÆ.

NEAREST POINT ON THE LINE 7° 5' S.

1806 Month.	Face.	Observed Zenith Distance.	Correc- tion.	Corrected Zenith Distance.	Thermometer.	
					Upper.	Lower.
August	25. E.	7° 03' 38" .62	⁺ 36" .27	7° 4' 4" .89	76°	76°
	26. W.	7 03 29 .87	26 .37	7 3 56 .24	72	73
	27. E.	7 03 40 .87	26 .47	7 4 7 .34	71	71
	Mean,...				73	73.3

ARCTURUS.

NEAREST POINT ON THE LINE 7° 10' N.

1805 July				+					
11.	W.	7 12 12 .43	7 .50	7 12 19 .93	74.5	74.5			
13.	E.	7 11 58 .13	7 .36	7 12 65 .49	74	74.5			
16.	W.	7 12 11 .36	7 .16	7 12 18 .52	77	77			
22.	E.	7 11 59 .98	6 .85	7 12 6 .83	80	79.5			
26.	W.	7 12 13 .26	6 .60	7 12 19 .95	84	83			
Mean,...					77.9	77.7			

MARKAB.

NEAREST POINT ON THE LINE 1° 10' N.

August				-					
13.	E.	1 9 50 .40	22 .11	1 9 28 .28	68	68			
14.	W.	1 10 5 .30	22 .32	1 9 42 .98	69	70			
17.	E.	1 9 55 .00	22 .93	1 9 32 .07	69	70			
21.	W.	1 10 5 .30	23 .72	1 9 41 .58	68	69			
23.	W.	1 10 06 .00	24 .09	1 9 41 .91	72	72			
28.	W.	1 10 4 .40	24 .98	1 9 39 .42	68	69			
29.	E.	1 10 00 .00	25 .18	1 9 34 .82	72	72			
30.	W.	1 10 6 .50	25 .35	1 9 41 .15	71	71			
Mean,...					69.6	70.1			

PEGASI.

NEAREST POINT ON THE LINE 1° 5' N.

August				-					
22.	E.	1 6 21 .26	24 .04	1 5 57 .22	68	69			
23.	W.	1 6 31 .63	24 .42	1 6 07 .21	70	71			
27.	E.	1 6 23 .50	24 .95	1 5 58 .56	68	69			
30.	W.	1 6 35 .13	25 .14	1 6 09 .69	68	70			
Mean,...					68.5	69.8			

Means of the Zenith Distances taken on the right and left Arcs, corrected for refraction, equation of the sectorial tube, and the mean runs of the Micrometer.

PREVIOUS to this arrangement of the zenith distances it may be proper to say a few words on the different corrections here mentioned.

THE refraction is had from the tables of mean refraction, and no notice taken of the barometer or thermometer, or of the heights of the stations above the level of the sea, considering it doubtful what corrections to apply until observations are made, and tables of refraction constructed, for this climate, and for different elevations.

THE corrections for the micrometer were determined by taking the runs between every dot on the arc when the mean temperature was 74° , it having been discovered upon more minute attention, that one degree on the limb was more than 3600 divisions marked seconds on the micrometer; and the average of all the results gave 3604. Therefore one minute counted by that scale required a deduction of 0.066 to give its true measure from the nearest dot. In all these observations two thermometers were used, one opposite the upper axis, the other opposite the arc, and the experiments for ascertaining the runs were made when the thermometers stood at the same degree.

THIS error in the scale of the micrometer has doubtless arisen in a great measure from the unequal expansion of the sectorial tube and the frame which carries it, whereby the point of the screw does not coincide with the centre of the steel plate against which it presses, and in consequence causes a greater equation than what would arise simply from

the expansion of the arc while the point rested on the centre of the plate. Exclusive of the above correction, I have endeavoured to make some allowance for the variation of temperature from 74° , but I have found it too trifling to be noticed.

THE correction for the sectorial tube, is a small equation which arises when the temperature above is different from that below; on which account the expansion and contraction of the tube are not in the same ratio with those of the arc. This irregularity, like the last, is in general very inconsiderable, though the correction for it is taken into account.

ZENITH DISTANCES at Dodagoontah, *arranged and finally corrected.*

α SERPENTIS.

1805	Left Arc.	1805	Right Arc.	Mean.
Month.		Month.		
July 10.	5° 56' 57' .35	July 12.	5° 56' 52' .45	Mean, 5° 56' 53' .82
15.	5 57 1 .10	18.	5 56 48 .37	Refraction &c. .. + 5 .82
19.	5 57 3 .98	24.	5 56 53 .42	
20.	5 57 0 .08	27.	5 56 46 .55	Zenith Distances, 5 56 59 .64
29.	5 56 53 .98	31.	5 56 47 .45	
1806 } June } 19.	5 57 57 .68	1806 } June } 20.	5 56 51 .93	
23.	5 56 54 .64	22.	5 56 48 .68	
Mean, ..	5 56 57 .67	Mean, ..	5 56 49 .97	

α HERCULIS.

1805	Left Arc.	1805	Right Arc.	Mean.
Month.		Month.		
July 19.	1° 37' 36" .41	July 12.	1° 37' 20" .92	Mean,..... 1° 37' 27" .52
28.	1 37 33 .85	16.	1 37 20 .26	Refraction &c..... + 1 .47
August 2.	1 37 32 .60	29.	1 37 20 .34	
8.	1 37 33 .52	31.	1 37 20 .71	Zenith Distance,.. 1 37 23 .99
10.	1 37 33 .21	August 7.	1 37 21 .50	
14.	1 37 33 .89	9.	1 37 22 .08	
		12.	1 37 20 .98	
		16.	1 37 22 .89	
Mean,..	1 37 33 .91	Mean,..	1 37 21 .13	

α OPHIUCHI.

July 12.	0 17 14 .78	July 13.	0 17 03 .56	Mean,..... 0 17 7 .40
15.	0 17 14 .31	22.	0 17 0 .99	Refraction &c..... + 0 .31
19.	0 17 13 .03	29.	0 17 0 .52	
28.	0 17 13 .5	31.	0 17 2 .08	Zenith Distance,.. 0 17 7 .71
30.	0 17 12 .26	August 8.	0 17 1 .38	
August 7.	0 17 12 .53	10.	0 17 2 .12	
9.	0 17 13 .33	14.	0 16 59 .91	
12.	0 17 12 .12			
17.	0 17 13 .81			
Mean,..	0 17 13 .30	Mean,..	0 17 1 .51	

α AQUILÆ.

July 12.	2° 51' 3 .09	July 13.	2 50 50 .97	Mean,..... 2 50 57 .0
15.	2 51 0 .07	16.	2 50 51 .27	Refraction &c..... + 2 .78
19.	2 51 4 .86	22.	2 50 47 .31	
31.	2 51 1 .98	August 7.	2 50 52 .16	Zenith Distance,.. 2 50 59 .78
August 8.	2 50 59 .05	9.	2 50 53 .83	
10.	2 51 2 .74	12.	2 50 51 .88	
13.	2 51 2 .33	17.	2 50 52 .57	
20.	2 51 3 .70	30.	2 50 54 .11	
Mean,..	2 51 2 .23	Mean,..	2 50 51 .77	

ACCOUNT OF TRIGONOMETRICAL OBSERVATIONS AT AIR.

1805	Left Arc.	1805	Right Arc.	Mean.
Month.		Month.		
July 12.	4° 38' 4" .11	July 13.	4° 37' 51" .07	Mean, 4° 37' 58" .73
15.	4 38 5 .54	16.	4 37 52 .65	Refraction &c. ... + 4 .61
19.	4 38 5 .97	22.	4 37 52 .42	
29.	4 38 5 .54	30.	4 37 52 .21	Zenith Distance, ... 4 38 3 .34
31.	4 38 3 .83	August 7.	4 37 54 .09	
August 8.	4 38 1 .66	9.	4 37 55 .33	
10.	4 38 1 .93	12.	4 37 53 .65	
13.	4 38 2 .21	17.	4 37 56 .45	
20.	4 38 4 .36	30.	4 37 54 .05	
Mean, ...	4 38 3 .91	Mean, ...	4 37 53 .55	

β AQUILÆ.

1805		1806		
August 25.	7 4 4 .89	August 26.	7 3 56 .24	Mean, 7 4 1 .18
27.	7 4 7 .34			Refraction &c. + 7 .18
Mean, ...	7 4 6 .11	Mean, ...	7 3 56 .24	Zenith Distance, ... 7 4 8 .36

MARKAB.

1805				
August 14.	1 9 42 .98	August 13.	1 9 28 .28	Mean, 1 9 36 .57
21.	1 9 41 .58	17.	1 9 32 .07	Refraction &c. + 1.19
23.	1 9 41 .91	29.	1 9 34 .82	Zenith Distance, ... 1 9 37.76
28.	1 9 39 .42			
30.	1 9 41 .15			
Mean, ...	1 9 41 .41	Mean, ...	1 9 31 .73	

γ PEGASI.

August 23.	1 6 7 .21	August 22.	1 5 57 .22	Mean, 1 6 3 .17
30.	1 6 9 .69	27.	1 5 58 .56	Refraction &c. + 1.06
Mean, ...	1 6 8 .45	Mean, ...	1 5 57 .89	Zenith Distance, ... 1 6 4 .23

ARCTURUS.

1805					
July 11.	7° 12' 19' .93	July 13.	7° 12' 5' .49	Mean,	7° 12' 12" .81
16.	7 12 18 .52	22.	7 12 6 .83	Refraction &c.	+ 7 .03
26.	7 12 19 .95				
Mean,...	7 12 19 .47	Mean,...	7 12 6 .16	Zenith Distance, ..	7 12 19 .81

The Latitude of Dodagoontah Station, deduced from the foregoing Stars.

STARS.	From the beginning of 1805.		Latitude.
	Mean Declination.	Correct Z. Distance.	
Arcturus,	20° 12' 19' .23 N.	7° 12' 19' .84 N.	12° 59' 59' .39 N.
α Serpens,	7 3 0 .3	5 56 59 .64 S.	59 .97
α Herculis,	14 37 30 .96	1 37 28 .99 N.	61 .97
α Ophiuchi,	12 42 50 .91	0 17 7 .71 S.	58 .62
γ Aquilæ,	10 8 58 .34	2 50 59 .78 S.	58 .12
Atair,	8 21 53 .53	4 38 3 .34 S.	56 .87
β Aquilæ,	5 55 52 .71	7 4 8 .73 S.	61 .44
Markab,	14 9 40 .69	1 9 37 .76 N.	62 .33
γ Pegasi,	14 6 4 .7	1 6 4 .23 N.	60 .47
		Mean,	12 59 59 .91

THIS is one of the stations alluded to in the note p. 291, where the plummet is supposed to have been drawn to the northward; in which case the latitude here deduced must be something in defect.

9. POLE-STAR observations at *Dodagoontah Station*, reduced for determining the position of the Meridian.

1805	Apparent Polar Distance.	Latitude.	Azimuths.	Angle between the Pole-star & Lamp.	Angle between the N. Pole and Lamp.
Month.					
July 19.	1° 43' 58' .20	12° 59' 59" .91	1° 46' 42' .16	1° 31' 53" .00	0° 14' 49' .16
22.	1 43 57 .57		1 46 41 .70	1 31 56 .25	0 14 45 .45
August 8.	1 43 54 .07		1 46 38 .10	1 31 51 .25	0 14 46 .85
12.	1 43 53 .05		1 46 37 .06	1 31 48 .50	0 14 48 .56
17.	1 43 51 .70		1 46 35 .67	1 31 46 .25	0 14 49 .42
18.	1 43 51 .44		1 46 35 .40	1 31 47 .50	0 14 47 .90
19.	1 43 51 .16		1 46 35 .10	1 31 45 .50	0 14 49 .60
23.	1 43 50 .04		1 46 33 .97	1 31 45 .50	0 14 48 .47
26.	1 43 49 .09		1 46 32 .99	1 31 43 .50	0 14 49 .49
27.	1 43 48 .83		1 46 32 .73	1 31 44 .50	0 14 48 .23
Angle between the N. Pole and Referring Lamp N. Easterly,.....					0 14 48 .31
Angle between the Referring Flag and Savendroog,.....					104 4 29 .68
Angle between the N. Pole and Savendroog Station,.....					103 49 41 .37

ACCOUNT OF TRIGONOMETRICAL

SECTION V,

Length of the Perpendicular Degree, and the Latitudes and relative Longitudes of all the great Stations of Observation, and other places on the two Coasts.

10. THE measurement of an arc perpendicular to the meridian, and the length of a degree in latitude $12^{\circ} 55' 10''$.

FOR determining the latitude of *Savendroog*, we have at *Dodagoontah* station, the bearing of *Savendroog* station with the meridian $76^{\circ} 10' 18''.63$ S. W. and the distance between these two stations = 121933.2 feet. These will give the westing of *Savendroog* = 118399.2 feet, and the southing of the point on the meridian of *Dodagoontah*, where the perpendicular let fall from *Savendroog*, will cut the said meridian = 29143.3 feet, which is equal to an arc of $4' 48''.88$, and this deducted from the latitude of *Dodagoontah* gives $12^{\circ} 55' 11''.03$. The westing will give an arc perpendicular to the meridian $19' 29''.04$, with which, and the co-latitude of the above point, the latitude of *Savendroog* will be had $12^{\circ} 55' 10''.24$.



NOTE. The meridional degree is taken at 60498 fathoms, being the computed degree for latitude $12^{\circ} 55' 10''$, as deduced from the measured degrees for latitude $11^{\circ} 59' 55''$ and latitude $52^{\circ} 02' 30''$.

Pole-Star Observations at Savendroog Station, reduced for determining the position of the Meridian.

1804	Month.	Apparent Polar Distance.	Latitude.	Azimuths.	Angle between the Pole-star and Referring lamp.	Angle between the N. Pole and Referring lamp.
March	6.	1° 43' 57".66	12° 55' 10".24	1° 46' 39".72	2° 28' 56".75	0° 42' 17".03
	7.	1 43 57 .94		1 46 40	2 28 57 .25	0 42 17 .25
	8.	1 43 58 .23		1 46 40 .3	2 28 54	0 42 13 .7
	9.	1 43 58 .49		1 46 40 .57	2 28 53 .5	0 42 12 .93
	10.	1 43 58 .77		1 46 40 .86	2 28 57 .75	0 42 16 .80
	13.	1 43 59 .62		1 46 41 .73	2 28 56	0 42 14 .27
	14.	1 43 59 .91		1 46 42 .03	2 28 58 .75	0 42 16 .72
	15.	1 44 00 .19		1 46 42 .31	2 28 58 .75	0 42 16 .44
	16.	1 44 00 .49		1 46 42 .62	2 28 58 .25	0 42 15 .63
	21.	1 44 00 .96		1 46 43 .11	2 29 01 .12	0 42 18 .02
Angle between the North Pole and Referring Lamp,.....						0 42 15 .89 E.
Angle between the Referring Lamp and Mullapunnabetta,.....						90 40 01 .16
Angle between the North Pole and Mullapunnabetta,.....						89 57 45 .27 W.
Angle between the North Pole and Referring Lamp,.....						0 42 15 .89 E.
Angle between the Referring Lamp and Yerracondah,.....						92 04 49 .45
Angle between the North Pole and Yerracondah,.....						92 47 05 .34 E.

Pole-Star Observations at Mullapunnabetta Station, reduced for determining the position of the Meridian.

Nov.	7.	1 43 42 .37	12 55. 05 .6	1 46 24	170 43 15 .25	172 29 39 .25
	8.	1 43 42 .03		1 46 23 .65	170 43 18	172 29 41 .66
	10.	1 43 41 .36		1 46 22 .96	170 43 18 .37	172 29 41 .33
	12.	1 43 40 .71		1 46 22 .29	170 43 18 .13	172 29 41 .42
	13.	1 43 40 .39		1 46 21 .96	170 43 19 .38	172 29 41 .34
	14.	1 43 40 .07		1 46 21 .64	170 43 20	172 29 41 .64
	15.	1 43 39 .75		1 46 21 .31	170 43 19 .62	172 29 40 .93
	16.	1 43 39 .42		1 46 20 .97	170 43 20	172 29 40 .97
	17.	1 43 39 .11		1 46 20 .65	170 43 19 .25	172 29 39 .91
	19.	1 43 38 .49		1 46 20 .02	170 43 19 .25	172 29 39 .27
1805 } Dec. }	12.	1 43 13 .21		1 45 54 .11	170 43 49	172 29 43 .11
	13.	1 43 13 .04		1 45 53 .9	170 43 48 .25	172 29 42 .15
	14.	1 43 12 .85		1 45 53 .71	170 43 48 .12	172 29 41 .83
	15.	1 43 12 .67		1 45 53 .52	170 43 47 .75	172 29 41 .27
	16.	1 43 12 .49		1 45 53 .34	170 43 49 .25	172 29 42 .59
	20.	1 43 11 .84		1 45 52 .67	170 43 48 .2	172 29 40 .87
	24.	1 43 11 .29		1 45 52 .11	170 43 48 .5	172 29 40 .61
	25.	1 43 11 .16		1 45 51 .99	170 43 50 .35	172 29 42 .34
Angle between the North Pole and Referring Lamp,						172 29 41 .25 W.
Angle between the Referring Lamp and Savendroog,						97 41 34 .36
Angle between the North Pole and Savendroog,						89 48 44 .39 E.

Pole-Star Observations at Yerracondah Station, reduced for determining the position of the Meridian.

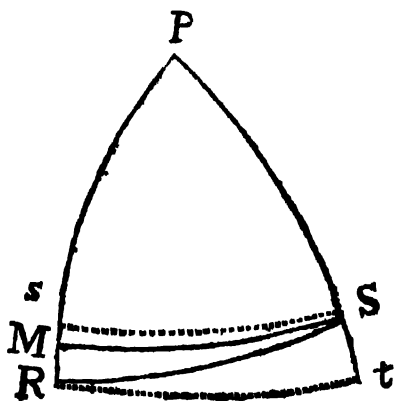
1804	<i>Apparent Polar Distance.</i>	<i>Latitude.</i>	<i>Azimuths.</i>	<i>Angle between the Pole-star & Referring lamp.</i>	<i>Angle between the N. Pole and Referring lamp.</i>
<i>Month.</i>					
Jan. 15.	1° 43' 49" .81	15° 52' 14" .36	1° 46' 30' .12	9° 3' 6" .5	7° 16' 36" .08
16.	1 43 49 .82		1 46 30 .43	9 3 3 .85	7 16 33 .42
19.	1 43 49 .9		1 46 30 .51	9 3 2	7 16 31 .49
20.	1 43 49 .92		1 46 30 .53	9 3 3 .5	7 16 32 .97
21.	1 43 49 .95		1 46 30 .56	9 3 5 .5	7 16 34 .94
22.	1 43 50 .02		1 46 30 .63	9 3 3 .75	7 16 33 .12
23.	1 43 50 .07		1 46 30 .68	9 3 4	7 16 33 .52
26.	1 43 50 .26		1 46 30 .87	9 3 5	7 16 34 .12
27.	1 43 50 .35		1 46 30 .96	9 3 4 .25	7 16 33 .3
Angle between the North Pole and Referring Lamp,					7 16 33 .64 E.
Angle between the Referring Lamp and Savendroog,					94 16 14 .97
Angle between the North Pole and Savendroog,					86 59 41 .33 W

As the latitudes were necessary for computing the azimuths, they were first had spherically for the two stations at *Mullapunnabetta* and *Terracondah*, by taking the westing and casting from the meridian of *Savendroog*, and converting them into parts of great circles. These came so near the truth, that on recomputing the azimuths by the latitudes finally brought out, there was no sensible difference.

It may be remarked here, that no double azimuths have been taken. The pole-star being so low, and the vapour in the atmosphere so great in general, that I have never, except in two instances, been able to discern it while the sun was above the horizon.

The Arc comprehended by the Meridians of Savendroog and Mullapunnabetta.

LET S and M be the stations at *Savendroog* and *Mullapunnabetta*, and P the pole, and SR be a great circle perpendicular to the meridian SP at S, and also Ss a parallel of latitude at the same point S. Then we have given the observed angles PSM and PMS, the distance SM, and the latitude of S, to find the latitude of M.



IN the spheriodical triangle MSR, the angle MSR = $90^\circ - \angle PSM = 0^\circ 2' 14''.73$, and the angle SMR = $180^\circ - \angle PMS = 90^\circ 11' 15''.61$, and these being corrected for the chords, we shall have the angle MSR = $0^\circ 2' 14''.73$, and the angle RMS = $90^\circ 11' 15''.50$ for the chord angles. Whence the angle SRM = $180^\circ -$ sums of the above angles, or $89^\circ 46' 29''.69$, and with these and the side or chord MS, the distance given by the triangles, we shall find the chord of the perpendicular arc SR = 357644 6 and the side MR = 233.64 feet, and this last may be taken either as a chord or arc indifferently.

Now the spherical excess of the triangle SMR is $0''.02$, and the sum of the corrections for the angles MSR and SMR being $-0''.03$, the difference between this sum and the said spherical excess is $+0''.01$ the correction for the angle MRS, which applied to the chord angle, we get the angle MRS or PRS as an observed angle, equal $89^\circ 46' 29''.68$.

CONTINUE the meridian PS to t, and draw Rt parallel to Ss. Then, since the small angle SRt, or its equal PRs, is half the difference between the angles PRS and PSR, that is half the difference between 90° and the

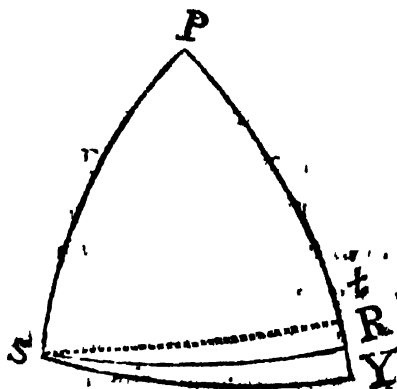
angle PRS as an observed one, we have $\frac{90^\circ - (89^\circ 46' 29''.68)}{2} = 6' 45''.16$, the angle RSs. Hence in triangle RSs considered as a plane one, there are given the angles at R and S and the side SR, as formerly found, from which will be had Ss and Rs equal 357642.6 feet and 702.51 feet respectively; as also Ms (= Rs — RM) equal 468.87 feet, which measures the distance between the parallels of S and M. But 468.87 feet as an arc on the meridian is $4''.65$, which subtracted from the latitude of S gives $12^\circ 55' 05''.59$ for the latitude of M, the station at *Mullapunnabetta*.

Hence in the triangle SPM there are given the sides SP and MP (the co-latitudes of S and M) and the angles PSM, PMS, the observed angles at S and M. Then, as the tangent $77^\circ 4' 52''.085$: tangent $0^\circ 0' 2''.325$:: tangent $89^\circ 53' 14''.83$: tangent $0^\circ 4' 31''.26$; which last applied to the half sum of the observed angles, we get $89^\circ 53' 14''.83 + 4' 31''.26 = 89^\circ 57' 46''.09$ and $89^\circ 53' 14''.83 - 4' 31''.26 = 89^\circ 48' 43''.57$ for the angles at *Savendroog* and *Mullapunnabetta* such as they would have been observed on a sphere. Then proceeding by spherical computation with the sides PS, PM, and the angles PSM and PMS given, the angle SPM, or difference of longitude of S and M will be had equal $1^\circ 00' 24''.44$, from which and the side SP in the right angled spherical triangle PSR the side SR or arc SR perpendicular to the meridian PS at the point S will be had equal $0^\circ 58' 52''.71$.

Now the chord of the arc SR is had = 357644.6 feet, half of which will be as the sine of half the arc SR, and from which is got the radius of the same arc, and thence the length of the arc SR is found to be 357650.8 feet. Then as $58' 52''.71$: 357650.8 :: $60'$: 364463.3 feet, or 60743.8 fathoms, for the measure of the degree at right angles to the meridian of *Savendroog*.

The Arc comprehended by the Meridians of Savendroog and Yerracondah.

LET S and Y be the stations at *Savendroog* and *Yerracondah* respectively, and let the latitude of Y be deduced from that of S, the angles PSY and PYS having been observed. Let SR be a great circle perpendicular to the meridian SP at S, and St' a parallel of latitude at the same point S. Here the angle $RSY = PSY - 90^\circ = 2^\circ 47' 51''.34$, and



the angle RYS being the observed angle at Y $= 89^\circ 59' 41''.33$. These angles being corrected for the chords, the supplement to their sum will be the chord angle at R in the spheriodical triangle SRY. Let the chords of SR and YR be computed with the corrected angles, then if the angle at R be augmented by the difference between the sum of the corrections for the other two angles and the spherical excess, it will become $90^\circ 13' 14''.74$, or such as would have been observed at R. Hence $180^\circ - \angle SRY = 89^\circ 46' 45''.26$ the angle t'RS, and by considering the triangle St'R as a plane one, the small angle t'SR is equal $\frac{90 - \angle t'RS}{2} = 0^\circ 6' 37''.37$. With this angle, and the angle t'RS, and the distance SR, as found above, the small side t'R is had $= 675.86$ feet, which added to $RY = 17067.72$ gives $t'Y = 17743.58$ feet, the distance between the parallels of S and Y. But 17743.58 feet is equal to an arc on the meridian of $2' 55''.98$, and this deducted from the latitude of *Savendroog*, gives $12^\circ 52' 14''.26$ for the latitude of *Yerracondah*.

HENCE, with the co-latitudes of *Savendroog* and *Yerracondah*, and the observed angles PSY and PYS, we have, the tangent of half the sum of the first, to the tangent of half their difference, as the tangent of

half the sum of the second, to tangent of $2^{\circ} 54' 25''.92$, their half difference: from which we get the greater angle at S = $92^{\circ} 47' 49''.25$, and the less angle at Y = $86^{\circ} 58' 57''.41$ thus corrected for computing spherically: and with these and co-latitudes, proceeding as before, the angle SPY will be had = $0^{\circ} 59' 14''.83$, and the perpendicular arc = $0^{\circ} 57' 44''.86$. But the chord subtended by this arc is 350824 feet, and therefore the arc itself 350827.7 feet. Then, as $57'.74767 : 350827.7 \text{ feet} :: 60' : 364510.8 \text{ feet}$, or 60751.8 fathoms, for the length of the degree at right angles to the meridian of *Savendroog*, as deduced from the distance between *Savendroog* and *Terracondah*; and the length of the perpendicular degree deduced from the distance between *Savendroog* and *Mullapunnabetta* being 60749.8 fathoms, the mean of these two, or 60747.8 fathoms, may be considered as nearly the true measure for latitude $12^{\circ} 55' 10''$.

If the ratio of the earth's diameters be taken as $1 : 1.003125$, and the meridional degree in latitude $11^{\circ} 59' 55''$ be 60494 fathoms; then, by using these data, the *computed* meridional degree on the ellipsoid in latitude $12^{\circ} 55' 10''$ will be 60498 fathoms; with which and the above ratio, the *computed* degree at right angles to the meridian in the same latitude will be had 60858 fathoms, which exceeds the measured one by 110 fathoms nearly; so that we may infer from this, either that the earth is not an ellipsoid, or that this measurement is incorrect.

THE more we investigate this interesting subject, and the more ample means we employ to ascertain the exact figure of the earth, the more seems to be wanting to satisfy our research; and if we feel reluctant in giving up the elliptic hypothesis, because it is consonant to that harmony and order with which we are familiar, the discord which these results indicate, afford by no means sufficient evidence to induce us to abandon that theory. The great nicety in making the pole-star observations is well understood, and it will be made more manifest in the case before us by increasing or diminishing the half sum of the angles with the meridians, reciprocally taken at *Mullapunnabetta* and *Savendroog*, by one second only,

when it will appear that a difference of nearly *one hundred and fifty fathoms*, in the perpendicular degree, will be occasioned thereby.

I AM fully aware of the delicacy necessary in taking these angles, and I am also aware that some eminent mathematicians consider the method of determining the difference of longitude by the convergency of meridians as insufficient in these low latitudes; yet I am of opinion that by repeating these observations whenever stations can be found, either in the same, or in different latitudes, the truth may ultimately be very nearly attained. I at one time had determined on increasing the number of observations at *Mullapunnabetta*, *Savendroog* and *Terracondah*, on my return to the eastward; but when I was at *Mullapunnabetta* a second time, and had increased the number of pole-star observations there to eighteen, and had also taken several other angles between *Savendroog* and the referring lamp, and after all finding that the angle between the meridian and *Savendroog* was altered only $\frac{1}{11}$ part of a second, I did not think it necessary to go to the other stations, particularly as the observations there had been made under the most favorable circumstances. It is, notwithstanding, desirable that many more measurements of the kind should be made, and that other methods should be tried for getting the length of a degree of longitude, particularly that of carrying a good time-keeper between two meridians at a known distance, a method which has been strongly recommended to me by the Astronomer Royal, and which I mean to put in practice in the course of my future operations. I had also devised another method by the instantaneous extinction of large blue lights fired at *Savendroog*, the times of which were to be noticed by observers at *Mullapunnabetta* and *Terracondah*, the distance of whose meridians on a parallel of latitude passing through *Savendroog* being nearly 135 miles. The experiments were attempted, but the weather was so dull that the lights could scarcely be distinguished. There is besides a difficulty in fixing the precise moment of extinction, and even in the most favorable state of the atmosphere, when the lights may be distinctly seen with the naked eye at near seventy miles distance, to come within half a second

of the truth, would be as near as the eye is capable of, which is equal to $7\frac{1}{2}$ in an angle at the pole: but the mean of a great number of successful results might come very near the truth.

SINCE the triangles in this survey have been carried direct from the observatory at *Madras to Mangalore*, by which easy means are offered to determine the length of a parallel of latitude subtended by two meridians nearly five degrees and a half distant from each other, it may be further suggested, whether a long course of corresponding observations made at *Madras* observatory and at another place on the *Malabar* coast, by the eclipses of the satellites, occultations of stars by the moon &c. might not afford another eligible method for determining the length of a degree of longitude, ' ' ;

In short, the difficulty of obtaining this desideratum, and the important advantages to geography and physical science which must accrue therefrom, are such powerful incitements to a zealous prosecution of the inquiry, that I may venture an assurance of leaving nothing undone, which may come within the compass of my abilities, to give every possible satisfaction on the subject; and if my endeavours to throw some light on the path to future discovery be successful, I shall close the period of my labours with the grateful reflection, that, while employed in conducting a work of national utility, I shall have added my humble mite to the stock of general science.

11. LATITUDE and longitude of *Kylasghur*.

LET *Y* be *Terracondah*, *K* *Kylasghur*, and *P* the pole. Then in the spherical triangle *PYK* there are given $YP = 77^{\circ} 7' 45''.74$, the co-latitude of *Terracondah*, $YK = 46' 33''.51$, the ob-

lique arc as computed on the spheroid;

and the angle $PYK = 92^{\circ} 13' 46''.11$, as

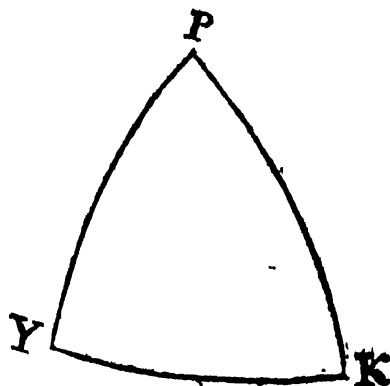
observed at *Terracondah*, to find *PK*, the

co-latitude of *Kylasghur*, which by sphe-

rical computation will be had equal 77°

$9' 38''.7$, and therefore the latitude equal

$12^{\circ} 50' 21''.3$, with which latitude the azimuths being reduced, the pole-star observations at *Kylasghur* will stand as follow :



1803	Apparent Polar Distance.		Latitude.	Azimuths.	Angle between the Pole-star and Referring lamp.	Angle between the North Pole and Referring Lamp.
Month.						
Dec.	3.	1 43 54 .74	} 12 50 21 .3	1 46 55 .41	3 28 57 "	1 42 21 " .59
	7.	1 43 53 .82		1 46 34 .51	3 28 52 .4	1 42 17 .89
	12.	1 43 52 .81		1 46 33 .56	3 28 53 .25	1 42 21 .69
	13.	1 43 52 .5		1 46 33 .46	3 28 53 .5	1 42 20 .04
	.					
Angle between the North Pole and Referring Lamp,						1 42 20 .30 E.
Angle between the Referring Lamp and Terracondah,						89 17 57 .607
Angle between the North Pole and Terracondah,						87 35 37 .807 W

If the same angle be brought out by using the co-latitudes of *Terracondah* and *Kylasghur*, and the observed angle at *Terracondah*, between the N. pole and *Kylasghur*, it will be $87^{\circ} 35' 37''$, very nearly the same as was observed.

THEN again, as the sine of either of the co-latitudes, is to the sine of the opposite angle, so is the sine of the oblique arc KY, to sine of the angle KPY, equal $47^{\circ} 42' .98$, the difference of longitude; to which add the difference of longitude between *Terracondah* and *Savendroog*, equal $59^{\circ} 14' .83$, we have $1^{\circ} 46' 57' .81$ for the longitude of *Kylasghur*, east from the meridian of *Savendroog*.

12. LATITUDE and longitude of *Karnatighur*, and the position of its meridian, deduced from that of *Kylasghur*.

THE southing of *Karnatighur* from *Kylasghur* is 95144 feet, equal to an arc of $15^{\circ} 43' .61$ on the meridian of *Kylasghur*; and the easting is 1093.83 feet, equal to $10' .8$ of a great circle at right angles to the said meridian, and passing through *Karnatighur*. From the nearness of the meridians of these two stations, the former arc may be considered as the difference of latitude, and therefore being subtracted from the latitude of *Kylasghur*, we have $12^{\circ} 34' 37' .69$ for the latitude of *Karnatighur*. Hence, by using the co-latitude $77^{\circ} 25' 22' .31$, and the small perpendicular arc $10' .8$, we shall have the difference of longitude $11' .06$, and the convergency of the meridian of *Karnatighur* towards that of *Kylasghur* $2' .46$ nearly. The former of which being applied to the longitude of *Kylasghur*, will give $1^{\circ} 44' 3' .87$ for the longitude of *Karnatighur* from the meridian of *Savendroog*, E.

Now the observed angle at *Kylasghur*, between the north pole and *Karnatighur*, was $179^{\circ} 20' 28' .83$, whose supplement is $0^{\circ} 39' 31' .17$, which will therefore be the angle at *Karnatighur*, between the north pole, and the parallel to the meridian of *Kylasghur*; from which subtract the convergency, we get $0^{\circ} 39' 28' .71$ for the angle between the north pole and *Kylasghur*, westerly; and this subtracted from $93^{\circ} 28' 42' .22$, the angle formerly taken at *Karnatighur*, between *Kylasghur* and *Carangooly*, gives $92^{\circ} 49' 13' .51$ for the angle between the north pole and *Carangooly*.

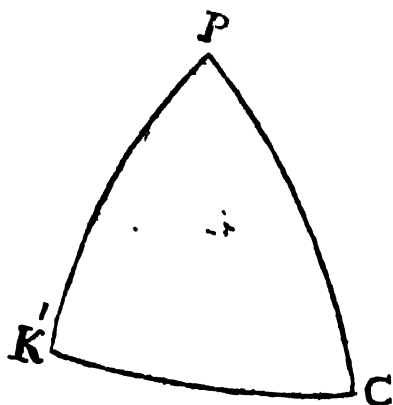
THE same angle taken at *Karnatighur*, in 1803, was $92^{\circ} 49' 15' .93$, but as there is reason to doubt the accuracy of that angle, from reasons already

given, to which may perhaps be added the want of experience, I shall reject it and adopt the one now brought out for determining

13. THE latitude and longitude of *Carangooly* Hill.

THE length of the arc comprehended by the stations at *Karnatighur* and *Carangooly*, as determined by the triangles in 1803, was 291196.9 feet, which, as an oblique arc, according to the present scales, will be equal 47' 56".21.

LET P be the pole, K' *Karnatighur*, and C *Carangooly*; and therefore K'C the oblique arc = 47' 56".21. Then if (a) the observed angle at *Carangooly*, be made use of, (which must be accurate enough for this purpose) we have sine



PK': sine $\angle PCK'$:: sine K'C: sine angle

K'PC equal 49' 2".9, the difference of longitude. Hence $1^{\circ} 47' 8''.87 + 49' 2''.9 = 2^{\circ} 36' 11''.77$, the longitude of *Carangooly* from the meridian of *Savendroog*.

AND as sine angle PCK': sine K'P :: sine $\angle PK'C$: sine PC = $77^{\circ} 27' 48''.2$, the co-latitude of *Carangooly*, whose complement $12^{\circ} 32' 11''.8$ is therefore the latitude.

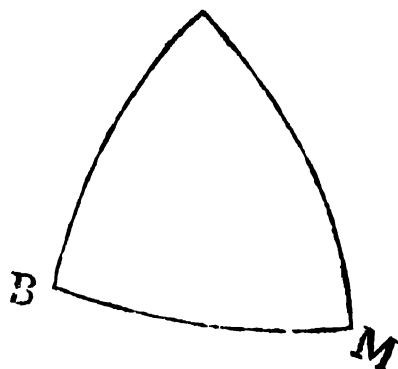
14. LATITUDE and longitude of *Bulroyndroog*, with the position of its meridian.

As the atmosphere was so extremely dull when the pole-star observations were made at *Bulroyndroog*, the angle between its meridian and

(a) As determined in 1803, equal $87^{\circ} 00' 07''.54$.

the station at *Mullapunnabetta* could not be taken, we must therefore depend altogether on computations made with the oblique arc, the latitude of *Mullapunnabetta*, and the angle at that station with the N. pole, and the station at *Balroyndroog*.

LET M and B be the stations at *Mullapunnabetta* and *Balroyndroog* respectively, and let P be the pole, then having given PM equal $77^{\circ} 4' 54''.41$, BM the oblique arc equal $52' 42''.12$, and the observed angle PMB equal $75^{\circ} 52' 54''.95$, we shall obtain by



spherical computation the side BP = $76^{\circ} 52' 08''.4$ the co-latitude, and the angle BPM = $52' 28'' 94$ the difference of longitude, which add to the longitude of *Savendroog* from *Carangooly* hill, and *Mullapunnabetta* from *Savendroog*, there will be $4^{\circ} 29' 03''.15$, the longitude of *Balroyndroog* from *Carangooly* hill.

TAKING the latitude thus found for computing the azimuths, the pole-star observations at *Balroyndroog* will stand as follow:

1805	<i>Apparent Polar Distance.</i>	<i>Latitude.</i>	<i>Azimuths.</i>	<i>Angle between the Pole-star and Referring lamp.</i>	<i>Angle between the N. Pole and Referring lamp.</i>
<i>Month.</i>					
Feb. 20.	1° 43' 34' .15	1° 07' 51".6	1° 46' 21' .05	56° 46' 43' .50	55° 00' 29' .45
22.	1 43 31 .82		1 46 21 .75	56 46 43 .75	55 00 29 .02
24.	1 43 35 .06		1 46 21 .96	56 46 43 .25	55 00 21 .27
25.	1 43 35 .33		1 46 22 .95	56 46 43	55 00 20 .75
26.	1 43 35 .57		1 46 22 .50	56 46 44 .5	55 00 22
27.	1 43 35 .80		1 46 22 .74	56 46 44 .25	55 00 21 .51
28.	1 43 36 .03		1 46 22 .97	56 46 43 .44	55 00 20 .44
Angle between the North Pole and Referring Lamp,					55 00 21 .49 N.

15. REDUCTION of some principal places on the two coasts in latitude and longitude.

TABLE 1. Containing the angles with the Meridian of Balroyndroog and its parallels, and the distances of certain places on the Malabar coast from that Meridian, and from its perpendicular.

STATIONS AT	Places computed.	Bearings referred to the Meridian of Balroyndroog.	Dist.	Distances on the		Distances from Balroyndroog on the	
				Perpendic.	Meridian.	Perpendic.	Meridian.
Balroyndroog,	Bullamully,	44° 57' 26" S. W.	164945	116546 W.	116722 S.	116546 W.	116722 S.
Bullamully,	Mangalore,	78 13 58 N. W.	91762	89834 W.	18714 N.	906880 W.	98008 N.
Goompay,	Goompay Hill,	25 08 29 S. W.	54990	23363 W.	49780 S.	139909 W.	166502 N.
	Bacul,	2 12 35 S. E.	101681	3920 E.	101606 S.	135989 E.	268107 S.
	Kunduddakamully,	35 57 46 S. E.	126146	74089 E.	102102 S.	65829 W.	268603 S.
	Mount Dilli,	4 23 08 S. W.	132113	10102 W.	131726 S.	75931 W.	400329 S.
	Taddiandamok,	64 55 19 S. E.	149160	135101 E.	63223 S.	69273 E.	331826 S.
	Cannanore,	32 45 22 S. W.	157072	84986 W.	138094 S.	15714 W.	463920 S.
	Tellicherry,	14 25 51 S. W.	175847	43773 W.	170311 S.	25499 W.	502137 S.

TABLE 2. Containing the angles, with the Meridian of Carangooly and its parallels, and the distances of certain places on the Coromandel coast from that Meridian, and from its perpendicular.

STATIONS AT	Places computed.	Bearings referred to the Meridian of Carangooly.	Dist.	Distances on the		Distances from Carangooly on the	
				Perpendic.	Meridian.	Perpendic.	Meridian.
Carangooly Hill,	Mullapode,	17° 47' 01" N. E.	144405	44105 E.	137505 N.	44105 E.	137505 N.
	Pernacoi,	24 14 20 S. W.	134240	55111 W.	122406 S.	55111 W.	122406 S.
Mallapode Hill,	Fort St. George,	58 27 57 N. E.	113739	96360 E.	59497 N.	141065 E.	197002 N.
	Mowbray's House,	64 16 15 N. E.	92027	83903 E.	39251 N.	127008 E.	177456 N.
Mowbray's House,	Madras Observatory,	0 00 18 N. E.	15914	1 E.	15914 N.	127009 E.	193870 N.
Pernacoi Hill,	Mooratan Station,	12 20 28 S. E.	83359	17315 E.	81486 S.	37296 W.	203832 S.
Mooratan Station,	Pondicherry,	47 38 45 S. E.	29207	17150 E.	15626 S.	20146 W.	219467 S.
	Trivandeporum,	17 43 21 S. W.	87363	26594 W.	83317 S.	63890 W.	287049 S.
Trivandeporum,	Cuddalore,	70 23 02 S. E.	24644	23214 E.	8273 S.	40676 W.	595322 S.

By table the 1st, *Mangalore* flag-staff is west from the meridian of *Balroyndroog* 206380 feet, and south 98008 feet from the station; and these converted into arcs according to the above scales, will give $33^{\circ} 58'$ and $16 12''$ respectively, and the latter arc added to the co-latitude of *Balroyndroog* (equal $76^{\circ} 52' 8''.4$) gives $77^{\circ} 08' 20''$ for the co-latitude of the point where a perpendicular from *Mangalore* will cut the meridian of *Balroyndroog* at right angles. Then as Rad.: Cos. $77^{\circ} 8' 20''$:: Cos. $33^{\circ} 58'$ (the perpendicular) : $77^{\circ} 08' 22'$, the co-latitude of *Mangalore*.

AND again, as Tan. $33^{\circ} 58''$: Sin. $77^{\circ} 08' 20''$:: Rad. : Cot. : $34' 50''$, the difference of longitude between *Balroyndroog* and the flag-staff at *Mangalore*.

By proceeding in the same manner with the other places on that coast, we shall have their latitudes, and their longitudes from the meridian of *Balroyndroog* as follow:

Names of Places.	Latitudes.	Longitudes from <i>Balroyndroog</i> .
Mangalore Flag-staff,	$12^{\circ} 51' 38''$	$0^{\circ} 34' 50''$ W.
Bacul Fort S. E. Cavalier,	$12^{\circ} 23' 32''$	$0^{\circ} 22' 55''$ W.
Mount Dilli Station,	$12^{\circ} 01' 41''$	$0^{\circ} 12' 47''$ W.
Cannanore Flag-staff,	$11^{\circ} 51' 11''$	$0^{\circ} 02' 38''$ W.
Tellicherry Flag-staff,	$11^{\circ} 44' 52''$	$0^{\circ} 04' 17''$ E.

By table 2d, the observatory at *Mudras* is 127009 feet east, and 193370 feet north from the station at *Carangooly*, which converted into arcs give $20^{\circ} 54' .45$ and $31^{\circ} 57' .78$ respectively; which being applied to the meridian and its perpendicular, passing through the observatory, and computing spherically, as in the last case, we shall obtain $13^{\circ} 04' 8''.7$ for the latitude of the observatory, and $21^{\circ} 27' .81$ for its longitude east from the meridian of *Carangooly*. And by pursuing the same method of calculation, we shall have have certain places on the *Coromandel* coast referred to the meridian of *Carangooly* as follow:

<i>Names of Places.</i>	<i>Latitudes.</i>	<i>Longitudes from Carangooly.</i>
Madras Observatory,	13° 04' 08' .7	0° 21' 27" .81 E.
Fort St. George Church Steeple,	13 04 45	0 23 44 E.
Pondicherry Flag-staff,	11 55 56	0 03 20 W.
Cuddalore Flag-staff,	11 43 23	0 06 48 W.

THE difference of longitude between the meridians of *Carangooly* and *Balroyndroog*, by Art. 14, is $4^{\circ} 29' 15''.15$, to which add the longitudes of the different places from the respective meridians, as heretofore deduced, we shall have the difference of longitude of those places which lie nearly in the same parallels of latitude as follows :

Difference of longitude between the observatory and *Mangalore*, $5^{\circ} 25' 23''$.
Church in *Fort St. George* and ditto, 5 27 45
Pondicherry and *Cannanore*, - - - - 4 28 13
Cuddalore and *Tellicherry*, - - - - - 4 18

HERE it may be proper to notice that in the requisite tables, the difference of longitude between *Fort St. George* and *Mangalore* is $5^{\circ} 27' 25''$, within 20" of what is here given; but the difference of longitude between *Cuddalore* and *Tellicherry* is $4^{\circ} 8' 42''$, differing no less than $9' 18''$ from the triangular measurement.

APPENDIX.

TABLE of LATITUDES and LONGITUDES of some of the principal places, as deduced from the operations in general.

NOTE. In the abbreviations H signifies hill; P pagoda, and Dg. droog. In all pagodas the tower is meant unless otherwise specified; or if they are stations, the platform is generally the place where the instrument stood, and is mostly marked by a small mill-stone. All places having the asterisk (*) annexed to them are the stations of the large theodolite, and are distinguished either by platforms with large stones in the middle, having small circles inserted thereon; or if on a rock, the circle is inserted on the rock, and in both cases the centre of the circle denotes the point over which the plummet was suspended.

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
ALLAMBADDY Fort,	12° 8' 26" N.	2° 20' 25" W	77° 46' 5" E.
* ALLASOOR H.	13 9 42	2 38 0	77 38 30
* ALLASOOR H.	13 16 18	0 31 34	79 44 56
ALBUMPARYA Fort,	12 16 12	0 14 5	80 2 25
AMARATTOOR Fort P.	12 55 23	3 18 35	76 37 35
AMBOIGE Dg.	13 23 37	2 14 48	78 1 42
AMBOOR Dg.	12 49 12	1 32 8	78 44 22
ANCHITTE Dg.	12 35 23	2 21 45	77 54 45
* ANKINGERRY Dg.	12 40 27	2 10 3	78 5 27
ANNICHI Fort P.	12 42 33	2 33 31	77 42 59
ARCOT FORT (Nahob's house),	12 54 14	0 54 57	79 21 33
ARNEE (Monument in the Fort),	12 40 19	0 57 58	79 18 32
Atcherawauk H. and P.	12 24 14	0 26 23	79 50 7
AUVILCONDAN,	13 7 40	1 1 54	79 14 36
* BAEKUL Fort,	12 23 32	5 13 28	75 3 2
* BALIPEER H.	13 39 7	2 58 28	77 18 2
BALLOOR FORT P.	13 9 47	4 23 42	75 52 48
B BALLAPOOR Edgah,	13 18 24	2 43 13	77 26 17
* BAIHOYN Dg.	13 7 51 .6	4 50 33	75 25 57
BANGALORE Palace,	12 57 34	2 40 45	77 35 45
BARTFORTH Peak,	13 51 23	5 23 28	74 53 2
Bellagola (Great statue),	12 51 15	3 46 13	76 30 17
BILLOOR FORT P.	12 58 58	3 31 26	76 45 4
BINKIPOOR Fort,	13 50 42	4 33 26	75 43 4

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
* Bettatipoor H. and P.	12° 27' 14" N.	4° 8' 23" W	76° 8' 7" E.
BHAVANY P.	11 25 45	2 34 19	77 42 11
* Bodecunulla,	13 12 41	1 10 55	79 5 35
BODELIMRAUZ Dg.	12 26 17	2 7 13	78 9 17
BOLCONDAN Dg.	12 37 15	2 8 14	78 8 16
* Bomabelly H. and P.	13 16 18	3 37 1	76 39 29
* Bonnairgottah,	12 48 43	2 40 41	77 35 49
* Booggargooda,	13 3 4	5 15 16	75 1 14
* Bullamully,	12 48 33	5 10 14	75 6 16
* Bullanaudgooda,	12 45 12	5 5 28	75 11 2
* BUNDHULLY Dg.	12 12 16	2 55 2	77 21 28
BUSHUNGY Dg.	13 44 24	3 12 57	77 3 33
BYRAN Dg.	13 5 41	3 4 47	77 11 43
CANANORE FORT, Flag Staff,	11 51 11	4 53 1	75 23 29
* Carangooly H.	12 32 12	0 21 28	79 55 2
CAVERYPPOORUM FORT,	11 54 43	2 29 36	77 46 54
CAUVERYPFAUK FORT,	12 54 15	0 47 18	79 29 12
CHALAMCOTTAH Large Tree,	13 26 50	2 7 36	78 8 54
CHAROUL Dg.	12 53 18	1 36 19	78 40 11
CHAYLOOR FORT,	13 26 37	3 21 1	76 55 29
* Chestkul H.	13 19 16	2 56 52	77 17 38
Chendragherry Fort,	12 27 53	5 15 13	75 1 17
* Chencaud,	11 56 56	0 39 45	79 36 45
CHENROYN Dg.	13 35 49	3 2 43	77 13 45
CHINGLEPET Fort Flag Staff,	12 41 59	0 16 12	80 0 18
CHINI Dg.	12 42 18	1 42 19	78 34 11
CHINEROYPUTTUN,	12 54 9	3 51 53	76 28 37
Chittepet H.	12 27 58	0 51 37	79 24 53
Chittepet Mosque,	12 27 55	0 53 58	79 22 32
CHITTLE Dg. Flag Staff,	14 13 4	3 51 34	76 24 56
CHITTOOR Fort,	13 13 5	1 9 27	79 7 3
CHOREEGHFRY Dg.	13 55 17	3 8 56	77 7 32
CHUNGAMAH,	12 18 4	1 27 24	78 49 6
COLAR FORT P.	13 8 20	2 6 49	78 49 41
CONJEVARAM Great Pagoda,	12 50 47	0 32 52	79 43 38
* Coonawaucum H.	12 50 56	0 18 51	79 57 37
* Coonum H.	12 5 20	0 34 12	79 42 18
COVELONG Church,	12 47 36	0 0 5 E.	80 16 35
CUDDALORE Flag Staff,	11 43 23	0 28 16 W.	79 48 14
CURPAH Fort,	13 14 39	3 24 11	76 52 19
* Daesaunecgooda,	13 15 46	4 6 34	76 9 56
Darampory Fort,	12 3 48	2 5 5	78 11 25
DENKANICOTTAH FORT,	12 31 53	2 27 53	77 48 37
DEONELLY Fort,	13 14 59	2 32 38	77 43 52
* Deorabetta,	12 37 32	2 37 36	77 38 54
* DEVAROY Dg.	13 22 25	3 2 28	77 14 2
* Dodagoontah,	12 59 59 1.9	2 37 40	77 38 50
Dursea Bahader Ghur,	13 20 13	5 34 14	74 42 16

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
ENORE Tree, -----	13° 14' 59" N.	0° 4' 42" E.	80° 21' 12" E.
ERODE Fort S. E. Cavalier, -----	11 20 27	2 31 26 W.	77 45 4
French Rock's Pillar, -----	12 30 31	3 33 24	76 43 6
GINGEE Dg. -----	12 15 18	0 51 19	79 25 11
GOPAUL Dg. -----	12 29 52	2 57 31	77 18 59
GOODEEBUNDAH Dg. -----	13 40 34	2 33 3	77 43 27
* Goompay H. -----	12 40 19	5 14 10	75 2 20
GOONICUL Fort, -----	13 1 33	3 13 34	77 2 56
Gooriattum P. -----	12 55 52	1 24 42	78 51 48
GUNGANGHERRY Dg. -----	12 25 54	1 57 47	78 18 43
GURRADAN Dg. -----	13 28 54	4 0 47	76 15 43
* Hallagammulla P. -----	11 0 52	2 48 54	77 27 36
* Hanandamulla, -----	12 55 57	0 51 14	79 15 16
HASSUN, -----	13 0 13	4 9 42	76 6 48
HOOLY Dg. -----	12 49 13	3 13 5	77 3 25
* Hunnabetta, -----	13 6 1	4 31 12	75 45 18
HUNNAMUN Dg. -----	13 55 41	4 19 38	75 56 52
HURROOR FORT, -----	12 2 50	1 46 1	78 30 29
HYDERGHUR, -----	13 42 6	5 15 27	75 1 3
JAINKUL Dg. -----	13 54 35	3 59 50	76 16 40
JIMTAHABAD Flag Staff, -----	13 1 34	4 57 46	75 18 44
KARKUL FORT, -----	13 12 34	5 15 36	75 0 54
* KARNATIC HUR, -----	12 34 38	1 10 31	79 5 59
Kasragoodla Fort, -----	12 29 36	5 16 3	75 0 27
KAUMUN Dg. -----	14 14 59	2 58 44	77 17 46
Krup Battery, -----	13 13 24	5 31 21	74 45 9
KINTNAGHERRY, -----	12 32 15	2 2 9	78 14 21
KOAJICONDAN Dg. -----	13 49 49	2 28 24	77 48 6
KONGOONDY Dg. -----	12 46 3	1 49 0	78 27 30
KOONLAH FORT, -----	12 36 5	5 19 6	74 57 24
KOONDAPOOR Fort, -----	13 38 10	5 34 11	74 42 19
* Koondhully H. -----	12 39 33	4 29 21	75 47 9
* Koondoorbetta, -----	12 51 16	4 18 19	75 58 11
KOPA Dg. -----	13 32 3	4 56 5	75 20 25
KOWLAH Dg. -----	13 43 5	5 8 27	75 8 3
* Kuddapoonabetta, -----	12 55 37	5 22 29	74 54 1
KUL Dg. -----	13 38 47	4 20 56	75 55 32
* Kulkolah, -----	13 25 14	2 39 9	77 37 21
* Kunttarenemulla, -----	11 35 31	2 58 57	77 17 33
* Kundudidakamully, -----	12 23 28	5 1 39	77 14 51
* Kunnoor H. -----	12 51 55	1 2 59	79 13 39
* KUTANAGHUR, -----	12 50 21 .3	1 10 42	79 5 48
MACKAY Dg. -----	13 25 58	2 45 4	77 31 26
MADURATHICUM P. -----	12 30 36	0 43 12	79 33 18
MADURAS (Observatory), -----	13 4 8 .7	0 00 00	80 16 30
* MADURAS HERRY Dg. -----	12 16 6	0 52 32	79 28 58
MADURAS H. and P. -----	12 39 57	3 36 9	76 40 21
MAHARAJAH Dg. -----	12 53 34	4 19 40	75 56 50

TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
* Mullapode H.	12° 54' 56" N.	0° 14' 1" W.	80° 2' 29" E.
MALLAVILLY FORT (S. W. Cavalier), ..	12 23 0	3 11 54	77 4 36
MANGALORE FORT (Flag Staff),	12 51 38	5 25 23	75 51 7
* Mannoor,	13 0 39	0 18 51	79 57 39
Marakerra (Tree),	12 26 20	4 30 46	75 45 15
* Maumdoor H.	12 44 44	0 34 59	79 41 31
MLDAGASHIE Dg. Mosquo,	13 49 54	3 3 34	77 12 56
* Meejar Hill,	13 3 21	5 19 21	74 57 9
MINCHICUL Dg.	13 27 47	3 3 16	77 13 14
MOODABIDDERRY P.	13 4 24	5 15 38	75 0 52
MOODUWADDIE Dg.	12 40 57	2 48 38	77 27 52
MOOLBY FORT,	13 5 12	5 28 13	79 48 17
MONJERABAD,	12 55 4	4 29 51	75 46 39
* Moratan,	11 58 30	0 27 42	79 48 48
* Mount Dilli,	12 1 41	5 3 20	75 13 10
MOUNT St. Thomas' (Flag Staff), ..	13 0 20	0 3 18	80 13 12
MUDDUKSERAH Dg.	13 56 41	2 59 0	77 17 30
MUDGHERRY D.	13 39 7	3 3 11	77 13 19
Muglee H. (Stone),	13 9 59	1 25 22	78 51 8
MULLANAIG Dg. P.	12 44 43	1 39 2	78 37 28
* Mullapunnabetta,	12 55 6	3 58 4	76 18 26
MULWAGGLE Dg.	13 10 14	1 52 6	78 23 24
* Mungot H.	13 0 31	0 8 57	80 7 33
Muntapum N. of Bangalore,	13 0 45	2 40 13	77 36 17
* Mylum H.	12 7 54	0 37 55	79 38 55
MYSOOR FORT (High Cavalier),	12 18 21	3 35 59	76 40 31
* Mysoor H.	12 16 40.5	3 35 2	76 41 28
Naggerry Nose,	13 22 50	0 39 13	79 37 17
NAGMUNGATUM FORT,	12 49 11	3 50 1	77 46 29
NARRAIN Dg.	12 42 45	3 40 7	76 36 23
NARRICUT Dg.	13 7 54	1 3 58	79 12 32
* Naudkaunce,	10 55 57	2 38 10	77 38 20
NEDDIGUL Dg. (Muntapum),	14 9 31	3 10 21	77 6 9
NEGIGUL Dg. (Pillar),	13 14 50	3 2 17	77 14 13
NUGGUR (BEDNORE) Flag Staff,	13 49 10	5 13 27	75 3 3
* NUNDY Dg.	13 22 12.5	2 34 1	77 22 29
NUNJENGODE P.	12 7 9	3 33 43	76 42 47
ODEA Dg.	12 36 55	2 19 20	77 57 10
OOSCOOTTA (Edgah),	13 4 21	2 23 13	77 48 17
OOSSOOR H. and P.	12 43 33	2 24 49	77 51 41
OOTRAMALLOOR FORT,	12 56 55	0 29 32	79 46 58
OOTUR Dg.	12 57 40	3 7 47	77 8 43
OYMUNGUL FORT,	14 5 44	3 43 15	76 33 15
PATTICONDAM P.	12 54 45	1 18 46	78 57 44
* Patticondah,	13 10 23	1 36 23	78 40 7
* Paudree,	13 19 41.3	0 34 8	79 42 22
* PAUGHUR,	11 6 19	2 58 34	77 27 56
* Paulamulla,	11 41 39	2 31 0	77 46 30

TABLE—CONTINUED..

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
PEDNAIG Dg.	12° 57' 33" N.	1° 38' 4" W.	78° 38' 36" E.
PERCONDAH Tree,	14 4 13	2 40 2.	77° 36 38
PENNAGRA Fort,	12 7 45	2 20 58	77° 55 32
* PERMACOIL H.	12 11 58	0 30 45	79 45 45
* Perambauk H.	12 53 7	0 3 9	80 13 21
* Pilloor H.	13 13 59	6 53 50	79 22 40
PONDICHERRY Flag Staff,	11 55 56	0 24 48	79 51 42
* Ponnasamulla,	12 8 47	2 36 27	77 40 3
* Poonauk H.	13 10 2	0 39 8	79 37 22
POONAMALLEE Flag Staff,	13 2 37	0 8 16	80 8 14
PULLIGATE Flag Staff,	13 25 9	0 4 13 E.	80 20 43
RAMCHERRY Dg.	13 56 53	4 8 19 W.	76 8 11
RAVALNELLORE Dg.	11 58 0	1 19 32	78 56 58
RIOJES CHOULTRY,	12 52 25	0 29 54	79 46 36
* Runganolly H. and P.	13 39 55	3 25 23	76 51 7
* Rungaswamy H. and P.	13 2 3	3 16 56	76 59 34
RUNGYAN Dg.	13 55 21	4 19 31	75 56 59
RUNGYAN Dg.	13 54 14	4 9 30	76 7 0
RYACOTTAM Flag Staff,	12 31 16	2 12 54	78 3 36
* RYMAN Dg.	13 21 17	2 14 37	78 1 53
SADRAS Flag Staff,	12 31 34	0 4 59	80 11 31
ST. GEORGE (FORT) Church steeple,	13 4 45	0 2 22 E.	80 18 52
SANKERRY Dg. Bungaloe on the top,	11 28 49	2 23 40 W.	77 52 50
SATTIAGUL Fort,	12 14 38	3 6 32	78 9 58
SATTIMUNGALUM Fort Bungaloe,	11 30 17	3 0 15	77 16 15
SAUTHUR Buikling on the top,	12 57 40	1 30 28	79 46 2
* SAVAY Dg. Station near the Muntapam,	12 55 10	2 57 40	77 18 30
SERAI FORT Flag Staff,	13 44 39	3 20 29	76 56 1
SERINGAPATAM P.	12 25 29	3 34 58	76 41 52
SEVEN P. P. on the Rock,	12 36 56	0 3 21	80 13 9
Shā Dg.	14 9 46	2 44 58	77 31 32
SHEEMOGA Fort,	13 55 33	4 40 25	75 36 5
* Shennaimulla,	11 9 27	2 39 58	77 36 32
SHEVAGUNGA G. P.	13 10 9	3 1 51	77 14 38
SHEVERAM H. Choultry,	12 46 17	0 22 45	79 55 45
SHOLANGUR G. P.	13 5 20	0 49 49	79 26 41
SOORAMANEE H. old P. (G. Mountain),	12 39 44	4 34 11	75 42 19
SOORAGHERRY Dg.	12 40 8	2 13 57	78 2 33
SOOLOOGHERRY Dg.	12 4 34	1 12 59	79 3 31
STAFF PERMATOOR P.	12 58 7	0 17 57	79 58 33
* Taddiandamole,	12 13 3	4 38 52	75 37 39
* Tandray,	13 8 5	0 10 46	80 5 44
TATTACUTTOO Dg.	12 24 5	1 39 42	78 36 48
TELLACHERRY Fort (Flag Staff),	11 44 52	4 46 16	75 38 14
* Telloor H.	12 31 51	0 40 5	79 36 25
TENGRIKOTTA Fort,	12 0 44	1 51 14	78 25 16
* Thittamulla,	11 20 49	2 53 49	77 22 41
TIAGAR,	11 44 14	1 10 28	79 6 2

OPERATIONS IN THE PENINSULA.

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TABLE—CONTINUED.

Names of Places.	Latitude.	Longitude from	
		Madras Obser.	Greenwich.
TIMMAPOOR Dg.	12° 24' 14" N.	1° 2' 24" W.	79° 14' 8" E.
Tirchunkode H. and P.	11 22 29	2 20 59	77 55 31
TIREKFARA Fort,	13 42 34	4 26 20	75 50 10
Terikitchoonum H. and P.	12 36 37	0 11 17	80 5 13
* Tirtapully H.	13 2 25	2 21 55	77 54 33
TRINOMALLEE H.	12 14 30	1 11 32	79 4 58
----- P.	12 13 53	1 10 46	79 5 44
TTIPPASOOR Fort N. Face,	13 8 36	0 22 22	79 54 8
* Trivandeporum,	11 44 45	0 32 10	79 44 20
TRIVILLOOR P.	13 8 37	0 20 19	79 56 11
Undar Ghaut (Peak),	13 20 32	5 10 45	75 5 45
UNGANAMULLA Dg.	12 38 4	1 58 49	78 17 41
* Ungargooda,	13 1 13	5 13 42	75 2 48
* Urumbanicum H.	13 12 5	0 23 53	79 52 37
VAIPOOR Dg.	12 8 44	1 25 24	78 51 6
VANDIWAER H. and P.	12 32 7	0 38 49	79 37 41
----- Fort,	12 30 32	0 38 47	79 37 43
VANIAMBADDY,	12 40 19	1 38 28	78 37 2
Veer Rajenderpett H. and P.	12 12 31	4 26 47	75 49 43
VELLORE Dg.	12 54 59	1 5 45	79 10 45
VELLORE FORT G. P.	12 55 20	1 7 15	79 9 15
* Vellengcaud,	12 20 41	0 18 47	79 57 13
VENKETTYGHERRY Fort,	13 0 2	1 45 50	78 30 40
VERABUD'R Dg.	12 23 20	2 8 41	78 7 49
VILLANOOR P.	11 54 44	0 29 35	79 46 55
WALLAJABAD Commanding Officer's house,	12 47 56	0 25 25	79 51 5
WALLAJAPFTT Mosque,	12 55 13	0 54 8	79 22 22
WHOLY HONOUR FORT,	13 59 7	4 34 22	75 42 8
* Womootoor H.	12 4 55	3 22 1	76 54 29
* Woorachmulla,	11 28 37	2 33 43	77 42 47
* Wooritty H.	12 22 41	0 34 16	79 42 14
Woos Dg.	12 18 30	5 09 48	75 06 42
Wurrelcondah H. and P.	13 38 12	2 28 23	75 48 07
Wuss Dg.	13 47 23	3 58	76 18 30
Yaelmatoor H.	11 12 06	2 30 12	77 46 18
YAENIKUL Dg.	14 00 58	3 27 16	76 49 14
Yamagherry H. and P.	12 48 46	3 12 19	77 4 11
YEGGOONDAH Dg.	13 16 41	2 59 46	77 16 44
Yerracondah (Mysoor),	12 52 14 .26	1 58 25	78 18 05
Yerracondah (Ceded Districts),	13 54 59	2 36 05	77 40 25

ELEVATIONS and DEPRESSIONS, contained Arcs, terrestrial Refractions,
together with the heights above the level of the sea,
of all the principal Stations.

1. STATIONS lying in the nearest direction between the two seas, commencing with the S. end of the base near *St. Thomas' Mount*, whose perpendicular height above the low water mark is 18.7 feet.

STATIONS AT	Stations Observed.	Apparent E° & D°	Cont. Arc.	Refrac.	Elevations above the sea.	
					Stations.	Heights
S. end of the Base, .	Perumbauk Hill, ..	1° 46' 25" E.	1° 21"	$\frac{1}{18}$	Perumbauk,	fort. 272.9
Perumbauk,	S. end of the Base, ..	1 47 25 D.				
Perumbauk,	Mullapode,	0 06 18 E.	10 41	$\frac{1}{10}$	Mullapode,	481.2
Mullapode,	Perumbauk,	0 15 40 D.				
Mullapode,	Carangooly Hill, ..	0 11 34 D.	23 51	$\frac{1}{10}$	Carangooly,	434.3
Carangooly,	Mullapode,	0 09 20 D.				
Carangooly,	Wooritty Hill,	0 02 17 D.	15 39	$\frac{1}{10}$	Wooritty,	552.7
Wooritty Hill,	Carangooly Hill, ..	0 10 25 D.				
Wooritty Hill,	Permacoil Hill,	0 08 36 D.	11 14	$\frac{1}{12}$	Permacoil,	484.5
Permacoil Hill,	Wooritty Hill,	0 01 38 D.				
Permacoil Hill,	Maillacherry,	0 07 27 E.	21 36	$\frac{1}{15}$	Maillacherry,	1140.8
Maillacherry,	Permacoil,	0 26 47 D.				
Maillacherry,	Karnatighur,	0 31 42 E.	25 27	$\frac{1}{10}$	Karnatighur,	3204.0
Karnatighur,	Maillacherry,	0 57 03 D.				
Karnatighur,	Kylasghur,	0 23 02 D.	15 44	$\frac{1}{14}$	Kylasghur,	2766.2
Kylasghur,	Karnatighur,	0 08 36 E.				
Kylasghur,	Yerracondah,	0 12 53 D.	46 33	$\frac{1}{17}$	Yerracondah,	3396.9
Yerracondah,	Kylasghur,	0 28 13 D.				
Yerracondah,	Savendroog,	0 17 55 D.	57 50	$\frac{1}{11}$	Savendroog,	4004.9
Savendroog,	Yerracondah,	0 29 50 D.				
Savendroog,	Mullapunnabetta, ..	0 31 10 D.	58 52	$\frac{1}{15}$	Mullapunnabetta, -	3406.7
Mullapunnabetta, ..	Savendroog,	0 19 41 D.				
Mullapunnabetta, ..	Koondhully Hill, ..	0 00 51 E.	34 14	$\frac{1}{16}$	Koondhully,	4366.3
Koondhully Hill, ..	Mullapunnabetta, ..	0 30 36 D.				
Koondhully Hill, ..	Bullamully,	1 17 40 D.	40 53	$\frac{1}{11}$	Bullamully,	774.5
Bullamully,	Koondhully,	0 31 46 E.				
Bullamully,	Kudapoonabetta, ..	0 25 08 D.	13 6	$\frac{1}{12}$	Kudapoonabetta, ..	318.7
Kudapoonabetta, ..	Bullamully,	0 14 15 E.				
Kudapoonabetta, ..	Eedgah Station, ..	0 35 37 D.	2 49	$\frac{1}{7}$	Eedgah Station, ...	146.7
Eedgah Station, ...	Kudapoonabetta, ..	0 33 20 E.				
Eedgah Station, ...	Sta ⁿ on the Beach, ..	0 58 53 D.	1 39		Station on the Beach,	22.6
Sta ⁿ on the Beach, ..	Eedgah Station, ..	0 56 36 E.				
The station on the Beach above the low water mark by measurement,						14.0
Difference or error,						8.6

2. STATIONS not lying in the nearest direction between the two seas, and commencing from Kylasghur.

STATIONS AT	Stations Observed.	Apparent 1" & D"	Corr. Arcs.	Refrac.	Elevations above the sea.	
					Stations.	Heights
Yerracondah,	Patticondah,	0 21' 29" D.	28' 6"	1 ¹ / ₈	Patticondah,	feet. 2942.7
Patticondah,	Yerracondah,	0 3 11 D.				
Patticondah,	Bodcemulla,	0 40 25 D.	24 53	1 ¹ / ₈	Bodcemulla,	1640.6
Bodcemulla,	Patticondah,	0 18 31 E.				
Yerracondah,	Rymandroog,	0 0 39 D.	33 4	1 ¹ / ₈	Rymandroog,	4226.8
Rymandroog,	Yerracondah,	0 29 9 D.				
Rymandroog,	Nundydroog,	0 10 26 E.	18 54	1 ¹ / ₈	Nundydroog,	4856.8
Nundydroog,	Rymandroog,	0 27 19 D.				
Nundydroog,	Devarydroog,	0 30 56 D.	27 40	1 ¹ / ₇	Devarydroog, ...	3940.2
Devarydroog, ...	Nundydroog,	0 6 35 E.				
Yerracondah,	Tirtapully,	0 16 9 D.	25 4	1 ¹ / ₈	Tirtapully, - - -	3182.9
Tirtapully Hill, ...	Yerracondah,	0 6 39 D.				
Tirtapully Hill, ...	Bonnairgottah, ...	0 7 16 D.	22 49	1 ¹ / ₈	Bonnairgottah, ...	3305.1
Bonnairgottah, ...	Tirtapully Hill, ...	0 13 20 D.				
Bonnairgottah, ...	S. End of the Base, ...	0 25 38 D.	7 11	1 ¹ / ₈	S. end of Base, - -	3023.6
S. end of the Base, ...	Bonnairgottah, ...	0 18 49 E.				
Savendroog,	Bundhullydroog, ...	0 15 41 D.	42 59	1 ¹ / ₇	Bundhullydroog, -	1254.5
Bundhully,	Savendroog,	0 22 17 D.				
Deorabetta,	Ponnassmulla, ...	0 17 18 E.	28 47	1 ¹ / ₇	Ponnassmulla, - -	4928.3
Ponnassmulla,	Deorabetta,	0 42 45 D.				
Ponnassmulla,	Paulamulla,	0 11 46 D.	27 40	1 ¹ / ₈	Paulamulla,	4958.8
Paulamulla,	Ponnassmulla, ...	0 13 1 D.				
Paulamulla,	Woorachmulla, ...	2 34 47 D.	13 18	1 ¹ / ₈	Woorachmulla, - -	1472
Woorachmulla, ...	Paulamulla,	2 22 42 E.				
Bonnairgottah, ...	Deorabetta,	0 0 0	11 35	1 ¹ / ₈	Deorabetta, - - -	3408
Deorabetta,	Bonnairgottah, ...	0 10 6 D.				
Woorachmulla, ...	Shennimulla, ...	0 0 6 D.	20 7	1 ¹ / ₈	Shennimulla, - - -	1788.6
Shennimulla,	Woorachmulla, ...	0 17 58 D.				
Shennimulla,	N. W. end of Base, ...	0 48 13 D.	9 21	1 ¹ / ₈	N. W. end of Base, -	1060.3
N. W. end of the Ba. ...	Shennimulla, ...	0 40 15 E.				
Shennimulla, ...	Puchapolliam, ...	0 48 53 D.	9 57	1 ¹ / ₈	Puchapolliam, ...	1010.4
Puchapolliam, ...	Shennimulla, ...	0 40 20 E.				
N. W. end of the Ba. ...	S. E. end of Base, ...	0 16 26 D.	5 19	1 ¹ / ₈	S. E. end of Base, -	925.5
S. E. end of the Base, ...	N. W. end of Base, ...	0 12 16 E.				
Bonnairgottah, ...	Dodagoontah, ...	0 18 10 D.	11 40	1 ¹ / ₇	Dodagoontah, - - -	3037.9
Tirtapully Hill, ...	Allasoor Hill, ...	0 1 49 D.	17 16	1 ¹ / ₈	Allasoor Hill, - - -	3037.9
Allasoor Hill, ...	Tirtapully, ...	0 14 38 D.				
Allasoor Hill, ...	Kulkotah, ...	0 6 17 D.	15 34	1 ¹ / ₈	Kulkotah, - - -	3406.6
Kulkotah,	Allasoor Hill, ...	0 8 11 D.				
Kulkotah,	Yerracondah, ...	0 23 45 D.	29 54	1 ¹ / ₈	Yerracondah, - - -	2848
Yerracondah,	Kulkotah, ...	0 2 30 D.				
Yerracondah,	Bomasundrum, ...	0 46 2 D.	11 9	1 ¹ / ₈	Bomasundrum, - -	2037.7
Bomasundrum, ...	Yerracondah, ...	0 56 19 E.				
Yerracondah,	Paughur, ...	0 6 49 D.	24 34	1 ¹ / ₇	Paughur, - - -	3022.6
Paughur,	Yerracondah, ...	0 15 35 D.				
Savendroog,	Cheetkul, ...	0 26 53 D.	24 7	1 ¹ / ₇	Cheetkul, - - -	3229.3

ACCOUNT OF TRIGONOMETRICAL

TABLE—CONTINUED.

STATIONS AT	Stations Observed.	Apparent E. & D.	Cont. Arcs.	Refrac.	Elevations above the sea.	
					Stations.	Heights
Cheetkul Hill,	Bailippee,	0° 25' 34" D.	49° 52'	17	Bailippee,	feet 2760.6
Bulipper,	Cheetkul,	0 6 56 E.				
Bundhully,	Kumbetarene,	0 3 26 E.	36 56	17	Kumbetarene,	5548.6
Kumbetarene-mulla,	Bundhully,	0 36 23 D.				
Bundhully,	Mysoor Hill,	0 29 27 D.	39 21	17	Mysoor Hill,	3446.6
Mysoor Hill,	Bundhully,	0 6 13 D.				
Mysoor Hill,	Bettatipoor,	0 0 11 D.	34 14	17	Bettatipoor,	4349.7
Bettatipoor,	Mysoor Hill,	0 30 4 D.				
Mullapunnabetta,	Bettatipoor Hill,	0 5 6 E.	29 37	17	Bettatipoor,	4347.3
Bettatipoor Hill,	Mullapunnabetta,	0 30 58 D.				
Mullapunnabetta,	Bomanelly,	0 18 52 D.	29 30	17	Bomanelly,	3142.3
Bomanelly,	Mullapunnabetta,	0 8 42 D.				
Bomanelly,	Daesaneegooda,	0 0 6 E.	28 46	17	Daesaneegooda,	3804.1
Daesaneegooda,	Bomanelly,	0 25 55 D.				
Daesaneegooda,	Hannabetta,	0 13 30 D.	25 54	17	Hannabetta,	3711.1
Hannabetta,	Daesaneegooda,	0 9 27 D.				
Mullapunnabetta,	Balroyndroog,	0 7 3 D.	52 42	17	Balroyndroog,	4998.9
Balroyndroog,	Mullapunnabetta,	0 41 16 D.				
Bettatipoor,	Taddiandamole,	0 8 15 E.	32 59	17	Taddiandamole,	5681.8
Taddiandamole,	Bettatipoor,	0 37 30 D.				
Taddiandamole,	Mount Dilli,	1 56 5 D.	26 27	17	Mount Dilli,	804.7
Kunduddakamully,	Taddiandamole,	1 17 19 E.			Kunduddakamully,	1856.2
Kunduddakamully,	Backul,	1 31 47 D.	11 33	17	Backul,	86.7
Backul,	Kunduddakamully,	1 21 40 E.				
Bullamully,	Kunnoor Hill,	0 29 53 D.	11 48	17	Kunnoor,	258.9
Kunnoor Hill,	Bullamully,	0 19 35 E.				
Koondhully,	Soobramancee,	2 22 57 E.	4 32	17	Soobramancee,	5583.5
Koondhully,	Koondoor Hill,	0 25 49 D.				
Koondoor Hill,	Koondhully,	0 11 25 E.	15 54	17	Koondoor Hill,	3844.5
Meejar Hill,	Kudapoonabetta,	0 23 31 D.				
Meejar Hill,	Booggargooda,	0 1 16 D.	9 52	17	Meejar Hill,	651.9
Booggargooda,	Meejar Hill,	0 2 23 D.				
Booggargooda,	Kooliebogooda,	0 14 39 E.	6 5	17	Booggargooda,	654.9
Station on the Beach,	Station on the Beach,	0 17 55 D.			Kooliebogooda,	200.5



V.

An ACCOUNT of the MALE PLANT, which furnishes the Medicine generally called COLUMBO, or COLOMBA Root.

BY DOCTOR ANDREW BERRY,

Member of the Medical Board of Fort St. George.

KALUMB of the *Africans.*

COLOMBA, or COLUMBO of the *Shops.*

IT is spelt *Kalumbo* by the *Portuguese*, in whose language the *o* is mute, and from this the name originated, by which this valuable root is known in *Europe*. It is a staple export of the *Portuguese* from *Mozambique*, and from the quantity exported, it is remarkable that the place of its growth, should have been so long unknown or doubtful to the rest of *Europe*.

IT is never cultivated, but grows naturally, and in abundance, in the thick forests, that are said to cover the coast about *Ozbo*, and *Mozambique*, and inland about 15 or 20 miles. The roots are dug up in the month of March, the dry season; or when the natives are not employed in agriculture; not the original root, which is perennial, but offsets from its base, that are of sufficient size, yet not so old as to be full of fibres, which render it unfit for commerce.

THIS root is in high estimation among all the *Africans*, even far removed from *Mozambique*, for the cure of dysentery, which is frequent among them; for venereals; for all complaints of long standing; in powder for the cure of ulcers, and as a remedy for almost every disorder.

Soon after it is dug up, the root is cut into slices, strung on cords, and hung up to dry in the shade. It is deemed merchantable, when, on exposure to the sun, it breaks short; and of a bad quality when it is soft, or black.

I AM indebted for the above account of the columbo root, to Mons. FORTIN; who, when at *Mozambique*, purchasing it as an article of trade, procured an entire offset from the main root, of a larger size than usual; which he brought with him to *Madras*, in September 1805; and presented it to Doctor JAMES ANDERSON, the Physician General; who considered it a valuable present to himself, and a great acquisition to *India*.

THIS root was cylindrical, somewhat flattened on the opposite sides; about 15 inches in length, a part being broken off; and between 3 and 4 inches in diameter; outwardly the common colour of columbo, but on breaking the surface, which is covered by a thin, tender, brownish pellicle, of a fine yellow.

THE root being succulent, and heavy, I planted it horizontally in a large box, filled with garden mould, where, in about a fortnight, it shot out two stems from the end that had been broken off from the parent root, but from not being vigorous, no flowers were then produced; and in about six months, from the time it had been planted, the stems withered down to the ground.

THE root was then carefully taken up, which was not altered in size, or appearance, but from the end opposite to where the stems had shot out several fusiform roots, or sessile tubers, had grown, as represented in the accompanying drawing. (*Fig. 2.*) These had evidently suffered from con-

finement in the box; none of the roots were then separated, and the whole was deposited in a cool room, and covered with moist sand; where in about two months, the old root began again to throw out several buds from the same end as before. It was now planted in the ground, when one more vigorous shoot, which grew rapidly, soon destroyed the others; and in a month this shoot produced male flowers only, nor after the strictest search, could any other be found on the plant, so that the genus is as yet uncertain.

THIS stem, like the former, withered in six months, when the roots were dug up, and found considerably larger, but not much altered in shape, nor had any of them attained a size to be compared with the original. There was only the addition of one new lateral root or branch, from this second year's growth. As it was supposed that these roots would now vegetate, they were detached; which has been unfortunate, as several months have now elapsed, and no buds have formed; they are however still very fresh, and may yet grow. From this it appears that only large roots are fit for planting out.

FROM the male flowers, and habit of the plant, the columbo seems to belong to the natural order of *Sarmentaceæ* Linn, or *Menisperma* of Jussieu. The following description may help to decide.

PLANTA Herbacea.

RADIX perennis, ramosa; rami fusiformes.

CAULIS annuus, post sex, aut septem menses marcescens, volubilis, simplex, teres, pilosus, crassitudine pennæ.

FOLIA alterna, petiolata, semipedalia et majora, subrotunda, quinqueloba, quinquenervia; lobis integerrimis, acuminatis.

PETIOLI teretes, pilosi, basi reflexi, folio paulo breviores.

MASCULI Flores.

RACEMI axillares, solitarii, compositi, pilosi, folio breviores. *Pedunculi* parciales alterni, floribus sessilibus.

BRACTEÆ lanceolatæ, ciliatæ, deciduæ.

CALYX *Perianthium* hexaphyllum; foliolis æqualibus, tribus exterioribus, tribus interioribus; oblongis, obtusis, glabris.

COROLLA hexapetala, minuta, *Petala* cuneato-oblonga, concava, carnea, obfusa, stamina ambientia.

STAMINA, *Filamenta* sex, corolla paulo longiora. *Antheræ* quadrilobæ, quadriloculares. **PISTILLUM** nullum.



EXPLANATION OF THE FIGURES.

Fig. 1. THE extremity of the shoot that flowered in 1807, rather smaller than the natural size.

2. The whole root, about one third of the natural size only;
3. One of the bractææ.
4. The under side of one of the flowers.
5. The upper side of the same. These three are magnified.
6. One of the petals more magnified than the last three.
7. The under side of one of the stamina, in the enlarged apex of which the four polliniferous pits are seen.

VI.

ON SANSKRIT AND PRAKRIT POETRY.

BY HENRY THOMAS COLEBROOKE, Esq.

THE design of the present essay is not an enumeration of the poetical compositions current among the *Hindus*, nor an examination of their poetry by maxims of criticism, recognized in *Europe*; or by rules of composition taught in their own treatises of rhetorick; but to exhibit the laws of versification, together with brief notices of the most celebrated poems in which these have been exemplified.

AN inquiry into the prosody of the ancient and learned language of *India* will not be deemed an unnecessary introduction to the extracts from *Indian* poems, which may be occasionally inserted in the supplementary volumes of Asiatick Researches: and our transactions record more than one instance of the aid which was derived from a knowledge of *Sanskrit* prosody, in decyphering passages rendered obscure by the obsolescence of the character, or by the inaccuracy of the transcripts.* It will be found similarly useful by every person who studies that language; since manuscripts are in general grossly incorrect; and a familiarity with the metre will frequently assist the reader in restoring the text where it has been corrupted. Even to those, who are unacquainted with the language, a concise explanation of the *Indian* system of prosody may be curious, since the artifice of its construction is peculiar, and not

* Vol. I. p. 279. Vol. II. p. 389.

devoid of ingenuity: and the prosody of *Sanscrit* will be found to be richer than that of any other known language, in variations of metre, regulated either by quantity or by number of syllables, both with and without rhyme, and subject to laws imposing in some instances rigid restrictions, in others allowing ample latitude. I am prompted by considerations to undertake the explanation of that system, premising a few remarks on the original works in which it is taught, and adding notices of the poems from which examples are selected.

THE rules of prosody are contained in *Sūtras* or brief aphorisms, the reputed author of which is PINGALANAGA, a fabulous being, represented by mythologists in the shape of a serpent; and the same, who, under the title of PĀTANJALI, is the supposed author of the *Mahābhāshya*, or great commentary on grammar, and also of the text of the *Yōga śāstra*;* and to whom likewise the text or the commentary of the *Jōtish* annexed to the *Vēdas*,† appears to be attributed. The aphorisms of PINGALA'CHĀRYA, as he is sometimes called; on the prosody of *Sanscrit* (exclusive of the rules in *Prācrit* likewise ascribed to him), are collected into eight books, the first of which allots names, or rather literal marks, to feet consisting of one, two or three syllables. The second book teaches the manner, in which passages of the *Vēdas* are measured. The third explains the variations in the subdivision of the couplet and stanza. The fourth treats of profane poetry, and especially of verses, in which the number of syllables, or their quantity, is not

* Or *Sān'hya* system of philosophy; distinguished from that of CAITIA.

† In the subscription to the only copy of this commentary, which I have seen, it is ascribed to ŚĪSHANAGA: but, in the body of the work, the commentator calls himself SO'MA CARA.

uniform. The fifth, sixth and seventh exhibit metres of that sort which has been called monoschemistic, or uniform, because the same feet recur invariably in the same places. The eighth and last book serves as an appendix to the whole, and contains rules for computing all the possible combinations of long and short syllables in verses of any length.

THIS author cites earlier writers on prosody, whose works appear to have been lost: such as SAITAVA, CRAUSHTICA, TA'NDIN and other ancient sages, YA'SCA, CA'S'YĀPA &c.

PINGALA'S text has been interpreted by various commentators; and, among others, by HELA'YUD'HA BHAT'T'A, author of an excellent gloss entitled *Mṛta sanjivini*.* It is the work on which I have chiefly relied. A more modern commentary, or rather a paraphrase in verse, by NA'RA'YAN'A BHAT'T'A TA'RA', under the title of *Vṛttōcti ratna*, presents the singularity of being interpreted throughout in a double sense, by the author himself, in a further gloss entitled *Paricshāi*.

THE *Agnipurān'a* is quoted for a complete system of prosody,† founded apparently on PINGALA'S aphorisms; but which serves to correct or to supply the text in many places; and which is accordingly used for that purpose by commentators. Original treatises likewise have been composed by various authors:‡ and among others by the celebrated poet

* I possess three copies of it; two of which are apparently ancient: but they have no dates.

† It is stated by the authors, who quote it, (NA'RA'YANA BHAT'T'A and others,) to be an extract from the *Agni purān'a*: but I have not been able to verify its place in that *Purān'a*.

‡ Such are the *Vān'ibhūshan'a*, *Vṛtta-derpan'a*, *Vṛtta-caumudī*, and *Vṛtta-ratnācāra*, with the *Ch'bandh-manjarī*, *Ch'bandh-mārtanda*, *Ch'bandh-mālā*, *Ch'bandh-nivṛti*, *Ch'bandh-gōvinda*, and several tracts under the title of *Vṛtta-muḍḍavallī*, besides treatises included in works on

CA'LIḌA'SA. In a short treatise entitled, *Srūta bōdha*, this poet teaches the laws of verification in the very metre to which they relate; and has thus united the example with the precept. The same mode has been also practised by many other writers on prosody; and, in particular, by **PINGALA'S** commentator **NA'RA'YAṆ'A BHAT'T'A**; and by the author of the *Vṛtta Retnācara* and *Vṛtta derpan'a*.

CA'LIḌA'SA'S *Srūta bōdha* exhibits only the most common sorts of metre, and is founded on **PINGALA'S** *Prācṛit* rules of prosody; as has been remarked by one of the commentators* on the *Vṛtta Retnācara*.

THE rules, generally cited under the title of *Prācṛit Pingala*, have been explained in a metrical paraphrase, teaching the construction of each species of metre in a stanza of the same measure, and subjoining select examples. This *Prācṛit* paraphrase, entitled *Pingala vṛtti*, is quoted under the name of **HAMMI'RA**,† who is celebrated in more than one passage given as examples of metre: and who probably patronised the author. It has been imitated in a modern *Sanskrit* treatise on *Prācṛit* prosody entitled *Vṛtta muctāvalī*;‡ and has been copiously explained in a *Sanskrit* commentary named *Pingala pracāsa*.§

other subjects. For example **VARA HAMIHIRA'S** system of astrology, which contains a chapter on prosody.

The *Vṛtta-retnācara* of **CĒḌA'RA BHAT'T'A**, with its commentaries by **DIVA'CARA BHAT'T'A**, **NA'RA'YAṆ'A BHAT'T'A** and **HARI-BHA'SCARA**, has been the most consulted for the present treatise. The *Vṛtta-derpan'a*, which relates chiefly to *Prācṛit* prosody, has been also much employed.

* **DIVA'CARA BHAT'T'A**.

† In the commentary on the *Vṛttōṣṭi-ratna*.

‡ The author **DURGA'DATTA** was patronised by the *Hindupati* princes of *Bundēl'chand*. The examples, which like the text are *Sanskrit* in *Prācṛit* measure, are in praise of these chieftains.

§ By **VISWARAT'HA**.

THOUGH relative to *Prācṛit* prosody, the rules are applicable, for the most part, to *Sanscrīt* prosody also: since the laws of verification in both languages are nearly the same.

THE *Prācṛit*, here meant, is the language usually employed, under this name by dramattick writers; and not in a more general sense of the term, any regular provincial dialect corrupted from *Sanscrīt*. HEMACHANDRA, in his grammar of *Prācṛit*, declares it to be so called because it is derived from *Sanscrīt*.*

ACCORDINGLY his and other grammars of the language consist of rules for the transformation of *Sanscrīt* words into the derivative tongue: and the specimens of it in the *Indian* dramas, as well as in the books of the *Juins*, exhibit few words which may not be traced to a *Sanscrīt* origin. This is equally true of the several dialects of *Prācṛit*: viz. *Saurasēni* or language of *Sūrasēna*,† and *Māgad'hī* or dialect of *Magad'ha*;‡ which, according to grammarians, who give rules for deducing the first from *Sanscrīt* and the second from the first.§ or both from *Sanscrīt* || are dialects nearly allied to *Prācṛit*, and regularly formed by permutations, for which the rules are stated by them. The same may be said

* प्रकृतिः संस्कृतं ॥ तच्च भवं न न आगमं वा प्राकृतं ॥

† CULLU'CA BHAT'T'A (on MENU 2. 19.) says, that *Sūrasēna* is the country of *Mat'hurā*.

‡ *Cicata* or *Bihār*. But it does not appear, that either this, or the preceding dialect, is now spoken in the country, from which it takes its name. Specimens of both are frequent in the *Indian* dramas.

§ VARARUCHI and his commentator BHA'MAHA.

|| HEMACHANDRA, who, after stating the special permutations of these dialects as derived from *Sanscrīt*, observes in both places, that the rest of the permutations are the same with those of *Prācṛit*.

of the *Paiśācī*, as a language, (and distinguished from the jargon or gibberish which either dramatick writers, or actors exhibiting their dramas, sometimes put into the mouths of demons); for the grammarians of *Prācṛit* teach the manner of forming the *Paiśācī* from the dialect called *Saurasēnī*.† That remark may be also extended to *Apabhraṃśa* as a fixed language partaking of *Prācṛit* and *Saurasēnī*, but deducing many terms immediately from the *Sanskṛit* under rules of permutation peculiar to itself. ‡

THE affinity of these dialects of *Prācṛit* to the *Sanskṛit* and to each other is so great, that they reciprocally borrow, notwithstanding their own particular rules, terms permuted in the manner of other dialects, and even admit, without alteration, words inflected according to the *Sanskṛit* grammar. § They may be, therefore, considered as dialects of a single language, the *Prācṛit* or derivative tongue; so termed with reference to *Sanskṛit*, from which it is derived.

BESIDES these cognate dialects, the dramatick writers introduce other languages as spoken by different persons of the drama. Such, according to the enumeration in the *Sāhitya darpan'a*, || are the *Dācshinātyā*, ¶ or language used in the south of India; the *Drāviḍī* or

* Or language of the *Puśācas*. विशाखनाथकृतम् -- BHAMANA ON VARARUCHI.

† VARARUCHI and HEMACHANDRA. The last mentioned author notices a variation of this dialect under the name of *Chūlucāpāśācī*; which differs very little from the proper *Paiśācī*.

‡ It is taught under this name by HEMACHANDRA, among other dialects of *Prācṛit*. But the name usually signifies ungrammatical language.

§ HEMACHANDRA ad finem.

|| Ch 5.

¶ Same with *Taidarbhi*, according to the commentator of the *Sāhitya darpan'a*. The country of *Taidarbha* is said to be the modern *Benar* proper.

dialect of the southern extremity of the peninsula; the *Avanticā* (probably the language of *Málavā*);* the *Ar'd'ha mágad'hí*, distinguished from *Mágad'hí* properly so called; the *Báhllicábháshá*, perhaps the language of *Báhl* in the *Transoxana*; † the *Maháráshtrí* or dialect of the *Maháratras*; the *Práchyá* or language employed in the east of *India*; ‡ the *Abh'rtí* and *Chándalí*, which from their names, seem to be dialects used by herdsmen and by persons of the lowest tribes; the *Sáncará* and *Sábartí*, concerning which nothing satisfactory can be at present suggested; and generally any provincial dialect.

It is not to be supposed, that the *Prácrīt* rules of prosody, as taught by PINGALA, are suited to all these languages: but it is probable, that they were framed for the same dialect of *Prácrīt*, in which they are composed; and they are applicable to those cognate dialects, which differ much less from each other (being very easily confounded), than they all do from *Sānskrīt*, their acknowledged common parent: Generally those rules may be considered applicable to all the languages comprehended under the designation of *Prácrīt*,§ as derivative from *Sānskrīt*; and certainly so to the vernacular tongues of the ten nations of *Hindus* now inhabiting *India*. A writer on *Sānskrīt* prosody || pro-

* *Avanti* is another name of *Ujjayanti*.

† *Báhllicā* or *Bahlica* (for the word is spelt variously) is a country famous for the breed of horses. AMARA. 2. 8. 45 It appears to be situated north of *India*; being mentioned in enumerations of countries, with *Turushca*, *C'hasa*, *Cásmíra* &c. (HE'MACHANDRA. 4. 25. *Tricānda s'esha*. 2. 1. 9)

‡ The commentator on the *Sāhitya derpan'a* (RA'MA CHARAN'A), interprets *Práchyā*, by *Gau'diyá*; meaning, no doubt, the language of *Bengal*. He was himself a native of this province; and his work is modern, being dated *S'aca* 1622 (A. D. 1700)

§ As. Res. VII p. 219.

|| NA'RA'YAN'A BHAT'T'A in a commentary on the *Vṛitta retnācara* written in *Sambat* 1602 (A. D. 1546)

pronounces the various kinds of metre to be admissible in the provincial languages, and has quoted examples in those of *Mahārāshṭra*, *Gurjara* and *Cānyacubja*. The last mentioned, which is the same with the old *Hindī*, as is demonstrated by this specimen of it, might furnish very numerous instances; especially the *Hindī* poetry of CE'SAVA DA'SA,* who has studiously employed a great variety of metre. Some examples will accordingly be quoted from the most distinguished *Hindī* poets. The sacred books of the *Sikhs*, composed in a *Penjābī* dialect, which is undoubtedly derived from the ancient *Sāreswata*,† abound in specimens of such metre. The language of *Mit'hilā*, and its kindred tongue, which prevails in *Bengal*, also supply proof of the aptitude of *Sanskrit* prosody: and the same is probably true of the other four national languages. ‡

PINGALA's rules of *Sanskrit* prosody are expressed with singular brevity. The artifice, by which this has been effected, is the use of single letters to denote the feet or the syllables. Thus L, the initial of a word signifying short (*lag'hu*), indicates a short syllable. G, for a similar reason,§ intends a long one. The combinations of these two letters denote the several dissyllables: lg signifying an iambic; gl a trocheus or choreus; gg a spondee; ll a pyrrichius. The letters, M.Y.R,S.T.J.Bh. and N, mark all the trisyllabical feet, from three long syllables to as

* Contemporary with JEHA'NGIR and SHA'H JEHA'N.

† The remaining *Sāreswata brāhmaṇas* inhabit chiefly the *Penjāb*.

‡ Those of *Draṇida*, *Carnātaca*, *Tēlinga*, and *Odra* or *Uḍiya*. I omit *Gaura*. The *Brāhmaṇas*, bearing this national designation, are settled in the districts around *Delhi*: but, unless there be the language of *Mat'burā*, it is not easy to assign to them a particular national tongue.

§ Being the initial of *guru*, long.

many short. A *Sanskrit* verse is generally scanned by these last mentioned feet; with the addition of either a disyllable or a monosyllable at the close of the verse, if necessary. This may be rendered plain by an example taken from the *Greek* and *Latin* prosody.

SCANNED in the *Indian* manner, a phalæucian verse, instead of a spondee, a dactyl and three trochees, would be measured by a molossus, an anapæst, an amphibrachys and a trochee; expressed thus, m. s. j. g. l. A sapphic verse would be similarly measured by a cretic, an antibacchius, an amphibrachys and a trochee; written, r. t. j. g. l.

To avoid the too frequent use of uncommon terms, I shall, in describing the different sorts of *Sanskrit* metre, occasionally adopt a mode of stating the measure more consonant to the *Greek* and *Latin* prosody, in which the iambic, trochee, and spondee, dactyl, anapæst, and tribrachys are the only feet of two or three syllables which are commonly employed.

IN *Prācṛit* prosody the variety of feet is much greater: verses being scanned by feet of different lengths from two *mātrās*, (two short syllables or one long) to three, four, five and even six *mātrās* or instants. These various descriptions of feet have been classified, and denominated, by the writers on this branch of prosody.

THE verse, according to the *Sanskrit* system of prosody, is the component part of a couplet, stanza or strophe, commonly named a *Śloka*, although this term be sometimes restricted to one sort of metre, as will be subsequently shown on the authority of CA'LI-

DA'SA. The stanza or strophe consists usually of four verses denominated *páda*; or, considered as a couplet, it comprises two verses subdivided into *pádas* or measures. Whether it be deemed a stanza or a couplet, its half, called *ard'haslóca*, contains usually two *pádas*; and in general the pauses of the sense correspond with the principal pauses of the metre, which are accordingly indicated by lines of separation at the close of the *Slóca* and of its hemistich. When the sense is suspended to the close of a second *Slóca*, the double stanza is denominated *Yugma*; while one, comprising a greater number of measures, is termed *Culaca*. In common with others, I have sometimes translated *Slóca* by "verse," or by "couplet;" but, in prosody it can only be considered as a stanza, though the pauses are not always very perfectly marked until the close of the first half: and, in conformity to the *Indian* system, it is generally treated as a tetra-stich, though some kinds of regular metre have uniform pauses which might permit a division of the stanza into eight, twelve, and even sixteen verses.

IN *Prácrít* prosody, a greater variety is admitted in the length of the stanza; some species of metre being restricted to a true couplet, and others extended to stanzas of six and even sixteen verses: independently of pauses, which, being usually marked by rhyme, would justify the farther subdivision of the stanza, into as many verses as there are pauses. Even in *Sanskrit* prosody, instances occur of stanzas, avowedly comprising a greater or a less number of verses than four: as three, five, six, &c. But these are merely exceptions to the general rule.

CONCERNING the length of the vowels in *Sanscrĭt* verse, since none are ambiguous, it is only necessary to remark, that the comparative length of syllables is determined by the allotment of one instant or *mātrā* to a short syllable, and two to a long one; that a naturally short vowel becomes long in prosody when it is followed by a double or conjunct consonant;* and that the last syllable of a verse is either long or short, according to the exigence of the metre,† whatever may be its natural length.

Sanscrĭt prosody admits two sorts of metre. One governed by the number of syllables; and which is mostly uniform or monoschemastic in profane poetry, but altogether arbitrary in various metrical passages of the *Vēdas*. The other is in fact measured by feet like the hexameters of *Greek* and *Latin*: but only one sort of this metre, which is denominated *A'ryā*, is acknowledged to be so regulated; while another sort is governed by the number of syllabick instants or *mātrās*.

* Or by the nasal termed *Anuswa'ra*, or the aspirate *Visarga*. By poetical license, a vowel may be short before certain conjuncts (viz. ऋ and ॠ, as also ॡ & ॢ). This license has been borrowed from *Prācrĭt* prosody, by the rules of which a vowel is allowed to be sometimes short before any conjunct, or before the nasal: but instances of this license occur in classical poems with only four conjuncts as above mentioned; and, even there, emendations of the text have been proposed by critics to render the verse conformable to the general laws of prosody. (See remarks in the *Durghat'a vr̥ttin*; on passages of MA'GHA's poem and of the *Cumāra*.)

† This rule of prosody is applicable to any verse of the tetraslich: but it is considered by writers on rhetoric inelegant to use the privilege in the uneven verses; and they thus restrict the rule to the close of the stanza and of its half, especially in the more rigid species of regular metre.

• 1. *Gan'ack'handas* or metre regulated by feet (*mātrāgan'a.*)

A'RYA' OR GA'T'HA'.

THE metre, named *A'ryá*, or, in *Prácrít*, *Gáhá*, from the *Sanskrit* *Gá'r'há*, is measured by feet denominated *gar'a*, or *mātrāgan'a*, which are equivalent to two long syllables or to four short: it is described as a couplet, in which the first verse contains seven and half feet; and the sixth foot must consist of a long syllable between two short, or else of four short; while the odd feet (1st, 3d, 5th and 7th) must never be amphibrachys.* In the second verse of the couplet, the sixth foot (for here too it retains that name) consists of a single short syllable. Consequently the proportion of syllabick instants in the long and short verses is thirty to twenty-seven.† The same metre has, with some propriety, been described as a stanza of four verses:‡ for it is subdivided by its pauses into four *pādas*, which have the usual privilege of giving to the last syllable, whether naturally long or short, the length required by the metre. The pause is commonly restricted to the close of the third foot; and the measure is in this case denominated *Pa'thyá*: but, if the pause be placed otherwise in either verse, or in both of them, the metre is named *Vipulá*,

A PARTICULAR sort of this measure, deduced from either species above described, is called *Chapalá*; and the laws of its construction require, that the second and fourth feet should be amphibrachys; and that the first foot should be either a spondee or an anapæst; and the fifth,

* If the rule be violated, the metre is named *Gurvin't*; but this is reprobated by writers on prosody.

† As. Res. Vol. II p. 390.

‡ *Vitta muktikali*.

a dactyl or a spondee. The first verse of the couplet, the second or both, may be constructed according to these rigid rules: hence three varieties of this sort of metre.

THE regular *A'ryā* consists of alternate long and short verses: but, if the short verse precede the long one, the metre is called *Udgīti*. If the couplet consist of two long verses, it is named *Gīti*; or of two short verses, *Upagīti*. Another sort of this metre is named *A'ryā gīti*: it is constructed by completing the eighth foot of the regular *A'ryā*.*

THIS measure admits therefore of eighty principal variations; deducible from the nine sorts abovementioned: for the pause may be placed at the close of the third foot in either verse of each couplet, in both, or in neither; and either verse, both, or neither, may be constructed according to the strict rules of the *Chapaśa* measure; and the verse may consist of seven and a half, or of eight feet; and may be arranged in couplets consisting of verses alternately long and short, or alternately short and long, or else uniformly long, or uniformly short.

THE *A'ryā* metre is very frequently employed by *Indian* poets; but works of great length in this measure are not common: it is oftener intermixed with verses of other kinds, though instances do occur of its exclusive use: thus the first and fourth cantos, and most part of the 2d and 3d, in the poem entitled *Nalodaya*, and the entire work of GOVERD'HANA,† are in the *A'ryā* metre. And so is the brief text of the

* It may be varied by alternating a long and a short verse, or a short and a long one, or by making both verses long.

† Consisting of seven hundred (or with the introduction 755) stanzas of miscellaneous poetry; and entitled from the number of stanzas *Septa satī*.

Sāṃkhya philosophy of CAPILA, as taught by 'IS'WARACHARN'A;† and the copious treatise of astronomy by BRAHMEGUPTA.‡

THE *Nalodaya* abovementioned, which is ascribed to the celebrated poet CA'LIDA'SA, is a poem in four cantos, comprising 220 couplets or stanzas;§ on the adventures of NALA and DAMAYANTI: a story which is already known to the *English* reader.¶ In this singular poem, rhyme and alliteration are combined in the termination of the verses: for the three or four last syllables of each hemistich within the stanza are the same in sound though different in sense. It is a series of puns on a pathetic subject.

It is supposed to have been written in emulation of a short poem (of 22 stanzas) similarly constructed but with less repetition of each rhyme; and entitled from the words of the challenge with which it concludes, *Ghata carpara*.

आलस्यं ननु विनाः करं नोपैयं
भगवन् न क्व विनाः करं नोपैयं
आलस्येन कविनायमसौ परेण
मदीयमुदकं च टक्परेण ॥

* THIRSTY and touching water to be slipped from the hollow pitcher of my hands, I swear by the loves of sprightly damsels, that I will carry water in a broken pitcher for any poet by whom I am surpassed in rhymes.*

• Author of the *Cāricā* or metrical maxims of this philosophy. *Sūtras*, or aphorisms in prose, which are ascribed to CAPILA himself, are extant: but the work of 'IS'WARACHARN'A is studied as the text of the *Sāṃkhya* (As. Res. Vol. VIII. p. 466.)

† Entitled *Brahmaphuṭa sidd'hānta*: other treatises, bearing the same or a similar title, are works of different authors.

‡ Chiefly *A'ryā*, with a few anapæstic stanzas (*Tōl'aca*), and a still smaller number of iambics and trochaics (*Pramān'i* and *Samān'i*).

¶ Translated by Mr. KINDERSLEY of Madras, from a tale in the provincial language.

HOWEVER, the epick poem of MA'E'NA, which will be mentioned more particularly under the next head, contains a specimen of similar alliteration and rhyme; the last fourteen stanzas of the sixth canto, (descriptive of the seasons,) being constructed with like terminations to each half of the stanza. Instances will also be cited from BHA'RAVI'S poem hereafter noticed.

THE following example of a species of the *A'ryā* metre is taken from the preface of the *Mahābhāṣya*.

A'rya gāi (8 feet).

असिंरजानिभिरमाख्यैर्योगैः परजानैः ।

ॐ स्वराजानीते स्वर्गनिजनः कलेधराजानीते ॥

"The king celebrated under the name of RA'MA; *exists, who is conversant with the supreme ways of moral conduct; in whose family, exempt from calamity and enriched with the gems of the earth, dependants flourish." 1. 5.

The next is taken from DAMAYANTI'S lamentation on finding herself deserted by her husband NALA. It is in the same species of metre.

26. Tàtra, padé'vyálinám,
at'ha vibh'ántam'vané cha dévyá, 'línám
sanu-vrindé vyálinám
tat-in-dad'háné, tayá'spadé vyálinám.

27. Véga-balá 'páfitayá,
Vén'yá, Bhaimí yutá lalápá 'sitayá.

“ Nīlpa ! sa-calāpā 'fitayā
hatwā 'rin, bāndhavān cilā 'pāsi tayā.

28. Sa car'ham mīna-vanānām,
Nyáyavidī ácharaśi śévyamāṇa-vanānām,
D'hrita-simá navānām,
Dārānām tyāgam, anupamá! 'navanānām.

* RA'MA RA'JA, by whose command the poem was composed. So the commentators remark: but it remains uncertain who he was, or where he reigned.

29. Para-crīṣṇāśīlā tīwēnah [tu'énah]
 Smarāmi, tan na smṛitō 'śi mē tattwēna,
 Do'sha-samétatwēna
 pradūṣhayē nā'tra śambhramē śat' twēna : [tūwē, ina!]"

तच्चपदेव्यासीनामवविष्टा नमविष्टव्यासीनाम् ।

तत्प्रदूषयेत्यासीनां तन्निदूषयामेतास्त्वदिव्यासीनां ॥ २९ ॥

वेगवलापासितयावेण्याभैमीयुताललापासितया ।

नृपसकलापासितयाहत्कारीन्वा न्धवान्किलापासितया ॥ ३० ॥

सकथमानवनानांन्यायविदाचरसिसेव्यमानवनानां ।

धृतसीमानवनानांदाशणात्यागमनुपमानवनानाम् ॥ ३१ ॥

परकृतमेतत्त्वेनःस्मरामितस्मृतोसिमेतत्त्वेन ।

दोषसमेतत्त्वेनप्रदूषयेतावसंभ्रमेतत्त्वेन ॥ ३२ ॥

“ THEN the princefs wandered in the forest, an abode of serpents, crowded with trees which resounded with the sweet buzz of bees, the resort of flocks of birds. With her dark hair dishevelled through her haste, BHĀTMĪ thus lamented:— “ King! thou slayest foes, but defendest thy kindred, with thy quiver and thy sword. Unrivalled in excellence and conversant with morality, how hast thou practised the desertion of a wife proud but left helpless in a forest; thus rendering thyself the limit of praise; but I consider this evil to be the act of another; and do not charge thee with it: I do not blame thee, my husband, as in fault for this terror.” 3. 26—29.

IN the passage here cited, some variations in the reading, and greater differences in the interpretation, occur: with which it is, however, unnecessary to detain the reader. After consulting several scholia, the interpretation, which appeared preferable, has been selected. The same mode will be followed in subsequent quotations from other poems.

II. *Mātrāc'handas* or metre regulated by quantity.

1. *VAITĀ'LI'YA*.

ANOTHER sort of metre, regulated by the proportion of *mātrās* or syllabick instants, is measured by the time of the syllables exclusively;

without noticing, as in the *Ganach'handas*, the number of feet. It is therefore, denominated *Mátrách'handas*, and the chief metre of this kind is named *Vaitáliya*. It is a tetraſtich or ſtrophe of four verſes, the firſt and third containing the time of fourteen ſhort ſyllables; and the ſecond and fourth, ſixteen. The laws of its conſtruction impoſe that each verſe ſhall end in a cretic and iambic; or elſe in a daſtyl and ſpondee;* or, by the addition of one long ſyllable to the regular *Vaitáliya*, in a cretic and bacchius† In regard to the remaining moments, which are ſix in the odd verſes, and eight in the even verſes of the ſtrophe, it muſt be obſerved as a general rule, that neither the ſecond and third, nor the fourth and fifth moments ſhould be combined in the ſame long ſyllable; nor, in the ſecond and fourth verſes, ſhould the ſixth *mátrá* be combined with the ſeventh. That general rule however admits of exceptions: and the name of the metre varies accordingly.‡

ALTHOUGH the *Vaitáliya* regularly conſiſt of alternate ſhort and long verſes, it may be varied by making the ſtanza conſiſt either of four ſhort or four long verſes; admitting at the ſame time the exception juſt now hinted.¶

* This variety of the metre is named *Apatálicā*.

† Thus augmented, the meaſure is called *Aupach'handasica*: the whole of the laſt canto of MA'GHA's epick poem hereafter mentioned is in this metre; and ſo is the firſt half of the 13th canto in BHA'RAVI's *Cirātárjuniya*.

‡ In the even verſes of the ſtrophe, if the 4th and 5th moments be combined in one long ſyllable, contrary to the general rule abovementioned, the metre is named *Práchya uritti*: or, in the odd verſes, if the 2d and 3d moments be ſo combined, the metre is denominated *Udáchya uritti*: or the rule may be violated in both inſtances, at the ſame time; and the meaſure then takes the name of *Praurittaca*.

¶ A tetraſtich, conſiſting of four ſhort verſes of the ſort called *Praurittaca*, is named *Cháruhasini*: and one comprizing four long verſes of that deſcription is termed *Aparánticā*.

THE following is an example of a stanza composed in a species of this metre:

Vaita'liya (Pravṛttaca).

Idam, Bharata-van'sa-bhūbhṛtām,
s'rūyatām, s'ruti-manórasāyanam,
pavitram, ad'hicam, subhódayam,
Vyása-vaśīra-cat'hitam, PRAVṚTTACAM.

ॐ-।०००।-०-।०-॥-०।-०।००।-०।-०॥
इदमैतवशमूनामभूयान्भुविमनोरसायनम्
पवित्रमधिकम्पुनोदयंवासवज्ञाकथितंप्रवृत्तम्

“LISTEN to this pure, auspicious and pleasing history of the kings of the race of BHARATA as uttered from the mouth of VYASA.”

HERE, as in most of the examples given by the commentator HELA'YUD'HA, and by other writers on prosody, the name of the metre occurs, but with a different acceptation. Where the stanza has the appearance of being a quotation (as in the present instance), it might be conjectured, that the denomination of the measure was originally assumed from the example; and this conjecture would appear probable, wherever the name (as is frequently the case,) has no radical meaning connected with the subject of metre. But, in many instances, the radical interpretation of the word is pertinent and has obviously suggested its application as a term of prosody; and the stanza, which is given as an example, must therefore have been purposely constructed to exhibit the metre by words in which its denomination is included. This is confirmed by the circumstance of some of the words being incompatible with the measure which they designate: and in such cases the author apologizes on that ground for not exhibiting the name in the example.

THE *Vaitáliya* metre has been employed by some of the most eminent poets: for instance, in the epick poem of MA'G'HA, the 16th canto of which is chiefly in this measure, as the 20th and last canto is in that species of it which is called *Aupach'handasica*.

THE work here mentioned is an epick poem, the subject of which is the death of S'IS'UPA'LA slain in war by CRĪSHN'A: it is entitled *S'isupá-la-bad'ha*, but is usually cited under the name of its author, whose designation, with praises of his family, appears in the concluding stanzas of the poem. Yet, if tradition may be trusted, MA'G'HA, though expressly named as the author, was the patron, not the poet. As the subject is heroick, and even the unity of action well preserved, and the style of the composition elevated, this poem is entitled to the name of epick. But the *Indian* taste for descriptive poetry, and particularly for licentious description, has disfigured even this work, which is otherwise not undeserving of its high reputation. The two first cantos and the last eight are suitable to the design of the poem. But the intermediate ten, describing the journey of CRĪSHN'A with a train of amorous damsels, from *Dwáracá* to *Indraprast'ha*, is misplaced, and in more than one respect exceptionable.

THE argument of the poem is as follows. In the first canto, NA'REDA, commissioned by INDRA, visits CRĪSHN'A and incites him to war with his cousin, but mortal enemy, S'IS'UPA'LA king of the *Chédís*. In the second, CRĪSHN'A consults with his uncle and brother, whether war should be immediately commenced, or he should first assist YUD'HISH-T'HIRA in completing a solemn sacrifice which had been appointed by

him: the result of the consultation is in favor of the latter measure; and accordingly, in the 3d canto, CRISHN'A departs for YUD'HISHT'HIR's capital. In the thirteenth he arrives and is welcomed by the PA'N'DAVAS. In the following canto, the sacrifice is begun; and, in the next, S'IS'UPA'LA impatient of the divine honours paid to CRISHN'A retires with his partisans from the place of sacrifice. A negotiation ensues; which is however ineffectual, and both armies prepare for action. This occupies two cantos. In the eighteenth both armies issue to the field of battle, and the conflict commences. The battle continues in the next canto, which describes the discomfiture and slaughter of S'IS'UPA'LA's army. In the last canto, the king, grown desperate, dares CRISHN'A to the combat. They engage, and in the *Indian* manner fight with supernatural weapons. S'IS'UPA'LA assails his enemy with serpents, which the other destroys by means of gigantic cranes. The king has recourse to igneous arms, which CRISHN'A extinguishes by a neptunian weapon. The combat is prolonged with other miraculous arms, and finally CRISHNA slays S'IS'UPA'LA with an arrow.

THE following example is from a speech of S'IS'UPA'LA's ambassador, in reply to a discourse of S'ATYACI brother of CRISHN'A, at an interview immediately preceding the battle.

विबिनश्चिन्तयद्दुर्विधः स्वयमेव स्वर्हितं पूजयन् ॥
 यदुदीरितमथ दः परैर्भविजानातिदद्भुतं मद्भुतं ॥ ३९ ॥
 विदुरेयदपायमात्मना परतः शङ्कतेऽबबाधुषः ।
 नपश्येपश्चिन्तयस्वतः प्रमिमीतेऽनुभवाद्भुतेऽप्यधीः ॥ ४० ॥
 कुशलं बलुतुभ्यमेव न च न ह्यहं यदम्यधमम् ।
 स्वपदेश मरः परेष्वपि स्वविनाशमिमुहेषु साधवः ॥ ४१ ॥

उभययुगपन्मयोदितं त्वरयासां त्वमद्येतरञ्चने ।

पुविभज्यपृथङ्जनोषयास्त्रगुणयत्किलतत्करिष्यसि ॥ ४३ ॥

अथवाभिनिविष्टबुद्धिबुबजतिव्यर्थकृतां सुभाषिणं ।

रविशगिषुशीतशेषिषः करजालकमलाकरेण्विव ॥ ४३ ॥

“ A low man, poor in understanding, does not perceive his own advantage: that he should not comprehend it when shown by others, is surprising. The wife, of themselves, know the approach of danger, or they put trust in others: but a foolish man does not believe information without personal experience. The proposal, which I made to thee, CRISHN'A, was truly for thy benefit: the generous are ready to advise even their enemies bent on their destruction. Peace and war have been offered at the same time by me; judging their respective advantages, thou wilt choose between them. Yet good advice addressed to those whose understanding is astray, becomes vain, like the beams of the cold moon directed towards lakes eager for the warm rays of the sun.” 16. 39—43.

ANOTHER passage of the same poem is here subjoined as a specimen of a different species of this metre. It is the opening of the last canto; where S'IS'UPA'LA, impatient of the discomfiture of his troops and of those of his allies, dares CRISHN'A to single combat.

Aupach'handusica.

मुखमुल्लासितचिरेखमुखैर्मिदुरसूयुगभीषणदधानः ।

समितविति विक्रमानमृष्यन्नातभीरुस्तथेदिरहमुररिम् ॥

Muc'ham ullasita-tri-rec'ham uchchair bhidura-bhrú-yuga-bhishan'an dad'hánah,
Samitáv iti vicramán amrīshyan, gatabhír, ákwata Chédírát Murárim.

‘ Raising his head, and with a countenance terrible by its forked brow and wrinkled forehead, the king of the *Chádís*, impatient of the prowess thus displayed in battle, banished fear, and challenged the foe of MUBA to the fight.’ 20. 1.

A further example of the same metre is the second stanza of the following extract from the *Cirata'rjuníya** of BHA'RAVÍ. The remain-

* ARJUNA and the mountaineer. *Cirata* is the name of a tribe of mountaineers considered as barbarians.

ing stanzas exhibit variety of measure, with two instances of singular alliteration.

THE subject of that celebrated poem is ARJUNA'S obtaining celestial arms from SIVA, INDRA and the rest of the gods, to be employed against DURYODHANA. It is by a rigid observance of severe austerities in the first instance, and afterwards by his prowess in a conflict with SIVA (in the disguise of a mountaineer), that ARJUNA prevails. This is the whole subject of the poem; which is ranked with the *Cumara* and *Raghu* of CALIDA'SA, the *Naishadhiya* of SRĪHARSHA, and MA'GHA'S epick poem, among the six excellent compositions in Sanskrit. The sixth is the *Meghaduta* also ascribed to CALIDA'SA; and, on account of its excellence, admitted among the great poems (*Mahacavya*), notwithstanding its brevity,

अनुचरेणप्रतापिषतेरद्योजगविलोकनेविस्मितमनसः । सज्जगदिष
चर्नप्रियमादयन्मुखरतावसरेद्विषिब्रजते ॥ १६ ॥ अलमेषविलोकि
तःप्रजानांसहस्रासंततिमंसुविहंगुं । घनवर्त्मसहस्रधेवदूरेनृष्टिम
गैरैरचलाधिपःशिरेभिः ॥ १७ ॥ इहदुरधिगमैःकिंचिदेवागमैस्त
तमस्तुतर्बर्ह्ययंत्यंतरं । अमुमतिविपिनंबेदहिग्वादिनेपुरुषमिवपरं
पद्मोत्तिमं ॥ १८ ॥ रूरिपल्लवपुष्पलतागृहीरूपसंसेवजलजै
र्जलरशिभिः । नयतिस्ततस्तुक्ततामयंधुतिमतीरूपपतमपिस्त्रियः
॥ १९ ॥ सुलभैस्तदानयवतायवतानिधिवह्नुकाधिपरमैःपरमैः ।
अमुनाधनैःक्षितिभूतानिभूतास्मनीत्यभातिजगतीजगती ॥ २० ॥

THE stanzas, which contain alliteration, are here copied in Roman characters.

18. Iha durad'higamaih
Cinchid évágamaih
Satatam afutaram
Varn'ayantyantaram }

Amum ativipinam
Véda digvyápinam
Puruṣham iva param
Padmayónih param.

20. Sulabbaih sadá nayavatá 'yavatá
'Nid'hi-guhyacád'hipa-ramaih paramaih
Amuná d'hanaih cshítibhríta 'tíbhritá
Samátítya bháti jagatí jagatí.

' THEN ARJUNA, admiring the mountain in silent astonishment, was respectfully addressed by his conductor, CUVE'RA's attendant: for even loquacity is becoming in its season.'

" THIS mountain with its snowy peaks rending the cloudy sky in a thousand places, is, when viewed, able to remove at once the sins of man. An imperceptible something within it, the wise ever demonstrate to exist by proofs difficultly apprehended. But BRAHMA' alone thoroughly knows this vast and inaccessible mountain, as he alone knows the supreme soul. With its lakes overspread by the bloom of lotus, and overshadowed by arbours of creeping plants whose foliage and blossoms are enchanting, the pleasing scenery subdues the hearts of women who maintained their steadiness of mind even in the company of a lover. By this happy and well governed mountain, the earth, filled with gems of easy acquisition and great excellence delightful to the god of riches, seems to surpass both rival worlds."* 5. 16—20.

2. MA'TRA'-SAMACA.

THE metre denominated *Mátra'samaca* consists of four verses, each of which contains the quantity of sixteen short syllables; and in which the last syllable must be a long one; and the ninth syllabick moment must be in general detached from the eighth and tenth and be exhibited of course by a short syllable; if the twelfth be so likewise, the metre is distinguished by another name; or if the fifth and eighth remain short, the denomination is again changed. The last sort of metre is varied by deviating from the rule respecting the ninth moment; and another varie-

* The first and fourth stanzas, in this quotation, are in the *Drutatilambita* metre, and the fifth in the *Pramitá'shard'*; which will be both noticed under a subsequent head. The third is in an uncommon measure named *Chandricá* or *Cshama'*.

ty exhibits the fifth, eighth and twelfth moments by short syllables.* These five varieties of the metre called *Mātrāsamāca* may be variously combined in the same stanza; and in that case the measure is denominated *Pādāculaca*: a name, which is applied with greater latitude in *Prācrīt* prosody, to denote a tetraſtick wherein each verse contains sixteen moments, without any other restriction as to the number and place of the long and short syllables.

A POEM inserted in the first volume of Asiatic Researches † is a specimen of the variety, which this sort of metre admits. In a collection of tales entitled *Vétāla panchavins'atī*, the author S'IVADA'SA has quoted several stanzas of that poem intermixed with others, in which the measure is still more varied: and I may here remark, that the introduction of rhyme into *Sanskrit* verse is not peculiar to this anapæstic metre: JAYADE'VA has adopted it with success in several other sorts of lyric measure; and it is frequent in *Sanskrit* poetry composed in any species of *Prācrīt* metre.

3. GĪTYA'RŪPA'.

ANOTHER species of metre regulated by quantity is named *Gītyāryā*. Like the preceding, it is a tetraſtick in which each verse consists of sixteen *mātrās* or moments; but all expressed by short syllables. In other words the stanza contains sixty-four short syllables distributed into four

* The names of these four varieties are 1st, *Vāna vāsica*, which exhibits the 9th and 12th moments by short syllables, and 15th and 16th by a long one: the rest being optional. 2dly, *Chitrā* exhibiting the 5th, 8th and 9th by short syllables, the 15th and 16th by a long one. 3dly, *Upachitrā*, the 5th, 8th short; 9th and 10th long; also 15th and 16th long. 4thly, *Viśvica*; 5th, 8th and 12th short; 15th and 16th long; and the rest indeterminate.

verses. From the mixture of verses of this description, with others consisting exclusively of long syllables, arises another metre distinguished into two sorts according as the first couplet in the stanza consists of short syllables and the second of long; or, conversely, the first long, and the second short.* The *Gṣtyāryā* may be further varied by making the last syllable of each couplet long, and all the rest short; at the same time reducing both couplets to twenty-nine moments, or the first only to that measure; and the second to thirty-one: or the first couplet to thirty, while the second contains thirty-two.†

4. *Prácrít* measures.

THE foregoing are all comprehended under the general designation of *Jāti*: and besides these, which are noticed in treatises on *Sanscrít* prosody, other kinds, belonging to the class of metre regulated by quantity, are specified by writers on *Prácrít* prosody. They enumerate no less than forty-two kinds, some of which comprehend many species and varieties. The most remarkable, including some of those already described as belonging to *Sanscrít* prosody, are the following, of which instances are frequent in *Prácrít*, and which are also sometimes employed in *Sanscrít* poetry.

A STANZA of four verses, containing alternately thirteen and eleven moments (and scanned 6+4+3 and 6+4+1) is named either *Dóhá*,‡

* The mixed metre, in which one couplet of the stanza contains short syllables, and the other long, is termed *Sic'há* or *Chū'dá*: if the first couplet contain the short syllables, it is denominated *Jyótish*; but is called *Saumyá*, or *Anangacridá*, when the first couplet consists of long syllables.


† This metre, concerning which authorities disagree, is called *Chū'dicá* or *Chūlicá*; or according to the *Vṛtta Ratnácara*, *Atiruchirá*.

‡ Corruptly *Dóhra*.

(*S. Dwipat'há*) or *Sórat'há* (*S. Sauráshtra*), according as the long verse precedes the short one, or the contrary. This metre, of which no less than twenty three species bear distinct names, (from 48 short syllables to 23 long and 2 short,) is very commonly used in *Hindí* poetry. As an instance of it, the work of BIHA'RILA'L may be mentioned, which consists of seven hundred couplets (*sat sai*) all in this measure. It is a collection of descriptive poetry; of which CRĪSHN'A, sporting with RA'D'HA' and the *Gópis*, is the hero. The following example is from that celebrated author.

Macarácrita Gópala cé
 Cun'd'ala jhalacata cána.
 D'hasyó manó hiya ga'd'ha samara:
 D'yód'hí lafata nifána.

मकरद्वानगोपालकेकुंडलमालकानकान ।
 धस्यो मनो हस्यगढ समरज्योतीलस्तनिसान ॥

'THE  shaped ring, which glitters in GO'PA'LA's ear, may be taken for the symbol of cupid suspended at the gate, while the god is lodged in his heart.'

TO understand this stanza, it must be remarked, that the symbol of the *Indsan* Cupid is the aquatick animal named *Macara*: (which has in the *Hindu* Zodiack the place of Capricorn). It is here translated dolphin, without however supposing either the deliverer of ARION, or any species of dolphin (as the term is appropriated in systems of natural history), to be meant.

THE *Gát'há* or *Gáhá* has been already noticed as a name of the *A'ryá* measure in *Prácrít* prosody. Including under this as a general designation the seven species of it, with all their numerous varieties, it is no uncommon metre in *Prácrít* poetry. A collection of amatory verses

ascribed to the famous monarch S'A'LIVA'HANA, comprising seven hundred stanzas* and purporting to be a selection from many thousands by the same author, is exclusively in metre of this kind. The introductory verse intimates, that

"Seven hundred couplets (*gôhás*) are here selected out of ten millions of elegant couplets composed by the poet HA'LA."

HA'LA is a known title of SA'LIVA'HANA, and is so explained both here and in a subsequent passage by the scholiast GANGA'D'HARA BHAT'TA. It is not, however, probable, that he really composed those verses; and it would be perhaps too much to conjecture, that the true author of them was patronised by that monarch whose existence as an *Indian* sovereign has been brought in doubt.

THE metre called *Maháráshtra* (in *Prácrît*, *Marahattá*) is a tetraстich, of which each verse contains 29 *mátrás*, scanned by one foot of 6 and five of 4; with a terminating trochee. It has pauses at the 18th and 29th *mátrás*. This measure is evidently denominated from the country, which gives name to the *Marahattá* nation; as another species, before-mentioned, takes its designation from *Sauráshtra* or *Sórat'tha*.† The circumstance is remarkable.

ANOTHER tetraстich, which it is requisite to notice, is denominated *Rólá*. Each verse contains 24 *mátrás*: and this species of metre admits

* From their number, entitled *Sat sat*.

† The peninsula between the gulfs of *Gambay* and *Cutch*. The name remains, but the boundaries of the province are more restricted than in ancient times. It still, however, includes the remains of CAISHNA's city of *Dwa'rca*; the celebrated temple of *Sómana'tha* so frequently plundered by the *Muhamedans*; and the mountain of *Girán'dra* held sacred by the *Jainas* no less than by the followers of the *Vida*.

twelve varieties, from 24 short syllables to 11 long and two short, bearing distinct names.

THE *Shat'padicā* (Pr. *Ch'happād*) is a stanza of six verses: arranged in a tetraſtich and couplet; the first termed *Cāvya*, and the second *Ullā-
la*. In the tetraſtich, each verse contains 24 moments (ſcanned 2+ five times 4+2, or elſe 6+ four times 4+2) with a pauſe at the 11th moment; and each verse of the couplet contains 28 moments, with a pauſe at the 15th. The varieties are extremely numerous, according to the number and the places of the long and ſhort ſyllables. No fewer than forty-five variations of the tetraſtich, and ſeventy one of the whole ſtanza, have ſeparate names. They are diſtinguiſhed by the number of ſhort and long ſyllables (from 152 ſhort to 70 long and 12 ſhort in the whole ſtanza, or from 96 ſhort to 44 long and 8 ſhort in the tetraſtich). The following example is extracted from the *Pingala-vṛtti*.

Ch'happādā or *Shat'padicā*.

Pind'hāu di d'ha ſan'nāha ; bāha uppara pac'hc'hara dāṭ,
Band'hu ſamadi, ran'a d'haliū Sēmi Hammira-baīna laṭ,
Uduu n aha ; paha bhamāū ; c'haga rūu ſiſa hi jhālāū.
Pac'hc'hara pac'hc'hara, 't'hēlli pēlli, pabbaṭ appārāū.
Hammira cajja Jajjala bhan'a, cōhān'ala mahu rāṣa jalāū.
Sulatāna ſiſa carabāla dāṭ, tējji calēvara, dīa chaḷlū.

पिन्धदिहसन्नाहबाहउपरपक्षरदइ ।

बन्धुसमदिरण्मलउसमिहमीरबअणलइ ॥

उदुउणहपहमउखगारिउसीसदिभा लउ ।

पक्षरपक्षरठेक्षिणेल्लिपबअअणारउ ॥

हमीरकज्जज्जल्लभणोहाणलमउमहउलउ ।

सुलानसीसकरबालदइतेज्जिलेवरदिअचलउ ॥

JĀJJALA, general of HAMMIRA's forces, taking the field against the Muhammedan emperor, says vauntingly—

“ I PUT on strong armour, placing barbs on my horse, and taking leave of kinsmen, I hasten to the war. Having received the commands of my master HAMMIRA, I fly through the sky ; I pursue the road ; I flourish my scimitar on the head of the foe. Amid the bustle of horse and foot I scale mountains In HAMMIRA's cause, JAJJALA declares, The fire of wrath burns within me ; laying my sword on the head of the Sultan, and abandoning this corporeal frame, I ascend to heaven.”

THE emperor, whose death was thus vainly promised to HAMMIRA, by his braggart general, must have been SULTA'N MUHAMMED KHU'NĪ, with whom he is stated to have been contemporary ; and who reigned from A. D. 1325 to 1351.* HAMMIRA was sovereign of *Sācambhari*, which, with unfeigned deference for the opinion of Captain WILFORD on a geographical question, I still think to be *Sāmbher* ; † and for this simple reason ; that the culinary salt, brought from the lakes of *Sāmbher*, is named in *Sanscrit*, *Sā'cambhariya lavana*, answering to the *Hindī Sāmbher lāun*. It is, however, proper to remark that maps exhibit a place of the name of *Sambhere* between *Ujjayinī* and *Indor*.

THE *Utcach'ha'* is a stanza of six verses, each comprising eleven moments (scanned 4 + 4 + 3). It admits eight species from 65 short syllables to 28 long and 10 short.

THE *Cundalica'* is composed of one stanza of the metre named *Dōha'*, followed by another in the measure called *Rōla'*. The entire stanza consequently comprises eight verses. In this species of metre, rhyme and alliteration are so appropriate ornaments, that it admits the repetition of

* As. Res. Vol. IX p 192.

† As. Res. Vol. VII. p. 511.

a complete hemistich or even an entire verse: as in the following example extracted from the *Pingala-pratya*,

'Gustā alid' or 'Gustā alid'.

D'hōllā mārā : D'hōllā maha, much'hā Mēch'hā Garā,
 Puta jājālā maha bāra, chālā bhā Hammā.
 Chālā bhā Hammā, pīā bhā mēni dampaī.
 Diga maga n'āha and'hāra d'hūli sūraha raha j'hampaī.
 Diga maga n'āha and'hāra ānu. C'hurāśānaca ōlā
 Davali, damāli vipac'hc'ha : mārū D'hōllā maha d'hōllā.

उज्जामारिअठिक्खिमच्चमुद्धिममेवसरीर॥
 पुरज्जज्जामज्जवरचलिअवीरच्चमीर॥
 चलिअवीरच्चमीरवाअभरमेवधित्तपइ॥
 दिगमगणच्चअभारधुल्लिक्खरच्चरच्चभंपइ॥
 दिगमगणच्चअभारआणुसुरसाणकओल्लाम॥
 दवलिदमसिदिप्यल्लामधुल्लिक्खिमच्चमेवसा॥

'HAVING made the barbarians faint at the sound of the drum beaten in the midst of *D'hōllā*, and preceded by JAJJALA eminent above athletes, the hero HAMMIRA advances; and as the hero HAMMIRA advances, the earth trembles under his feet. The cloud of dust, raised by the march of his multitudes, obscures the chariot of the sun. Darkness spreads with the march of his multitudes. The hostages of the Chaurāśānī are slain; the foe is slaughtered; and the drum is beat in the midst of *D'hōllā*.'

A STANZA of nine verses, composed of one of five with a tetraslich of the metre called *Dhā* subjoined to it, is denominated *Rad'd'hā*. Here the stanza of five contains three verses of 15 moments each, with two of 12 and 11 interposed. The distribution of the feet, together with a restriction as to the terminating one, varies in each verse: and a difference in the regulation of the feet gives rise to six varieties which have distinct appellations.

THE *Chāmpāśīlā* (Pr. *Chāmpāśīlā* or *Chāmpāśīlā*) is a stanza of sixteen verses distributed into four tetrasyllables, in which each verse contains 30 moments (scanned seven times 4+2), and terminated by a long syllable. This measure is of very frequent use in the poetry of the modern languages. The *Rāmāyaṇa* of TULASĪ DĀSA, in seven cantos, a poem held in great estimation by *Hindus* of the middle tribes, is composed chiefly in a similar metre under the same name (*Chāmpāśīlā*) and containing the same number of verses (16) in the stanza. It alternates with the *Dohā*; and very rarely gives place in that poem to any other metre.

In this metre the stanza contains the greatest number of verses of any admitted into *Pracrit* prosody. The other measures regulated by quantity are tetrasyllables, except the *Ghattā* and certain other couplets, noticed at the foot of the page;* some of which might have been ranked with more propriety under the next head of uniform metre.

One other measure which is placed in this class, but which belongs rather to another, remains to be noticed. It is an irregular stanza of four verses containing alternately 17 and 18 syllables with no regulation of their length or of the quantity of the verse or stanza. It is termed *Gandha*, or in *Pracrit* *Gand'hāna*.

THE rest of the *Pracrit* metres may be sought in the synoptical tables subjoined to this essay.

* The *Ghattā* and *Ghattāśanda*, consisting of two verses of 31 *mātrās* each. In the first species the pauses are after the 10th and 18th *mātrās*; in the other after the 11th and 18th. There is also a slight difference in the distribution of the feet (7 times 4+3 short; and 6+3 times 3+5 +6+3+3 short.) The *Dwipadīśā* has in each verse 28 *mātrās* (6+five times 4+2 long). The *Sic'ha* containing the like number, the *C'hanjā* with 41 *mātrās* to the verse, and the *Māla* with 45, are couplets: but the feet are strictly regulated.

THE present may be a proper place for noticing a class of poetry, which has been even more cultivated in the *Prâcrit* and provincial languages than in *Sanskrit*. I allude to the erotic poetry of the *Hindus*.

ON its general character, I shall briefly observe, that it is free from the grievous defects of the *Hindî* poems composed in the style and metre of *Persian* verse; but it wants elevation of sentiment and simplicity of diction. The passion, which it pictures, is sensual, but the language refined; with some tenderness in the expression and in the thoughts. Among the most celebrated poems in this class, may be mentioned, the *Chaura panchâsîcâ* comprising fifty stanzas by CHAURA, and *Amaru sâtaka* containing twice that number by AMARU. The first is supposed to be uttered by the poet CHAURA, who, being detected in an intrigue with a king's daughter, and condemned to death, triumphs in the recollection of his successful love. The other, which is a collection of unconnected stanzas on amatory topics, is reputed to be the work of the great SANCARA A'CH'ARYA; composed by him in his youth before he devoted himself to the study of theology:

SOME of the commentators on this poem have attempted to explain it in a devout and mystical sense, on the same principle upon which JAYADEVA's lyric poems are interpreted as bearing a religious meaning. The interpretation, however, is too strained to be admitted; and though JAYADEVA's intention may have been devout, and his meaning spiritual; AMARU, or whoever was the true author of the work bearing this name, is clearly the lover of an earthly mistress.

THE most singular compositions in this class of poetry, and for which chiefly a notice of it has been here introduced, are those in which the subject is treated with the studied arrangement and formal precision of the schools. I shall instance the *Rasamanjari* of BHĀNUDATTA MISRA in *Sanskrit*, and the works of MATIRĀMA and SUNDARA in *Hindī*. Here various descriptions of lovers and mistresses distinguished by temper, age and circumstances, are systematically classed and logically defined, with the seriousness and elaborate precision of scholastick writers. As ridicule was not intended, these poems are not humorous but trifling: and I should not have dwelt on the subject, if their number, and the recurrence of them in different languages of *India*, were not evidence that the national taste is consulted in such compositions.

III. *Varn'a vr̥tta*; metre regulated by the number of syllables.

THE next sort of metre is that, which is measured by the number of syllables: it is denominated *Acsharach'kandas* or *Varn'a vr̥tta* in contradistinction to the preceding kinds which are regulated by quantity; and it may be subdivided into three sorts, according as the verses, composing the stanza, are all similar, or the alternate alike, or all dissimilar.

THIS also is a stanza of four verses (*pādas*), each containing an equal number of syllables, the length of which is regulated by special rules. The number of syllables varies from twenty-four, to a hundred and four, in each strophe: that is, from six to twenty-six in each verse. There are indeed names in *Prācrit* prosody for verses from one to five syllables, and instances of *Sanskrit* verse containing a higher number than above stated; viz. from twenty-seven, to one less than a thousand. But these constitute distinct classes of metre. Between the limits first

mentioned, twenty-one kinds receive different appellations appropriated to the number of syllables contained in the stanza.

EACH kind comprehends a great variety of possible metres according to the different modes in which long and short syllables, as well as pauses, may be distributed; and since the four quarters of each stanza may be either all alike, or only the alternate similar, or all different, the variety of possible metres is almost infinite. PINGALA, however, gives directions for computing the number of species, and for finding their places, or that of any single one, in a regular enumeration of them; or conversely the metre of any species of which the place is assigned: and rules have been given even for calculating the space which would be requisite for writing down all the various species.

IN the first class, or kind, wherein the verse consists of six syllables, 64 combinations are computed on the syllables of each verse; 4096* on those of the half stanza; and 16,777,216† on the 24 syllables which constitute the complete stanza of this class. In the last of the twenty-one kinds, 67,108,864 combinations are computed on 26 syllables within each verse; nearly 4,503,621,000,000,000 on 52 syllables; and more than 20,282,388,000,000,000,000,000,000,000,000 on a hundred and four syllables which form the stanza.‡

* Viz. 64 uniform and 4032 half equal.

† Viz. 64 uniform; 4032 half equal; and 16,773,120 unequal or dissimilar.

‡ A mode of calculating the possible varieties of metre is also taught in the *Lilāvatī*, a treatise of arithmetick and geometry by BHĀSCARA. This truly learned astronomer was also a poet; and his mathematical works are composed in highly polished metre. If the reader figure to himself EUCLID in iambick measure, DIOPHANTUS in anapaest, or the *Almagest* versified with all the variety of *Horatian* metre, he will form an adequate notion of this incongruity.

THE different sorts, which have been used by poets, are few in comparison with the vast multitude of possible metres. Still they are too numerous to be all described at full length: I shall therefore select, as specimens, those sorts of metre, which are most frequently employed, or which require particular notice; referring for the rest to the subjoined tables in which the various kinds are succinctly exhibited by single letters descriptive of feet scanned in the *Indian* and in the *Latin* mode.

In the best *Sanskrit* poems, as those of *CA'LYDĀ'YA*, *DRĀ'KAVI*, *S'RI' HARSHA*, *MA'OHĀ* &c. the poet usually adheres to the same, or at least to similar metre, throughout the whole of one canto; * excepting towards the close of it, where the metre is usually changed in the last two or three stanzas, apparently with the intention of rendering the conclusion more impressive: Sometimes indeed, the metre is more irregular, being changed several times within the same canto, or even altering with every stanza.

THE *Rāghava pāṇḍavīya*, by *CHVĪRĀ'YA*,† is an instance of a complete poem, every canto of which exhibits variety of metre. This extraordinary poem is composed with studied ambiguity; so that it may, at the option of the reader, be interpreted as relating the history of *RA'MA* and other descendants of *DA'SARATHA*, or that of *YUDHISH-THĪRA* and other sons of *PĀṇḍu*. The example of this singular style of composition had been set by *SUBHĀSHU* in the story of *Vasavadattā*.

* Writers on rhetoric (as the author of the *Sādhya Harpanā* and others) lay it down as a maxim, that the metre and style should in general be uniform in each canto; but they admit occasional deviations in regard to the metre.

† So the author has called himself.

and BA'NABHATTA in his unfinished work entitled *Cādambā*; as is hinted by ÇAVIRA'JA. Both these works, which like the *Daśacūḍra* of DANDĪ, are prose compositions in poetical language and therefore reckoned among poems, do indeed exhibit continual instances of terms and phrases employed in a double sense; but not, like the *Rāghava paṇḍaviya*, two distinct stories told in the same words.

THE following passage will sufficiently explain the manner in which the poem is composed. The first stanza is of the mixed sort of metre named *Upajāti*, which will be immediately described; the second is in one of the measures composing it, termed *Upendravajra*.

मामुः श्रियदं बद्धिं ह्यु मत्तः प्रजापत्यः स तत्कालं हि पुर्वं मे । १ ।

असौ प्रजापत्यसदृशभावाद् जलस्य ज्ञेयमसः प्रमोदं ॥ २० ॥

विचित्रवीर्यस्य दिवं गतस्त्वपि तुः स राज्ञि त्वत्पुत्रवाच्ये ।

पुत्रीमयोद्याधृतं त्वमभद्रं स वृत्तिर्योऽयं सुखमद्युक्त्व ॥ ५० ॥

50. Māruh s'riyan sandad'had Indumatyāḥ,

S'lāghyah s'aratcāla ivō'du pañcēḥ,

Aśau, prajāpālapadaśha 'bhāvad,

Ajasya chacrē maṇasah pramōdam.

51. Vichitravīryasya divan gataśya

Pituh sa rājyam patipadya bālye,

Purim Ayōjhyām, Dhṛitrāṣṭra bhṛātām,

Sa Hastiśobham suc'ham ad'hyamāsa.

"HAVING the beauty of his mother INDUMATĪ, and admirable like the dewy season, when it enjoys the beauty of the sun, he (DASARATHA) delighted the mind of AJA* by his skill in the protection of the people, succeeding in youth in the kingdom of his variously valiant father, who departed for heaven, he dwelt happily in the city of Ayōdhya, which was adorned with elephants and upheld the prosperity of his realm."

OTHERWISE interpreted the same passage signifies

* AJA was father, and INDUMATĪ mother, of DASARATHA.

"Having the beauty of his mother, and admiring like the dewy season, when it enjoys the beauty of the stars and of the moon, he (PA'NDU) made glad the heart of the unborn god, by his skill in the protection of creatures. Succeeding in youth to the kingdom of his father VICHITRAVIRYA* who departed for heaven, he dwelt happily in the peaceful city of Hastinapura suspiciously inhabited by DRAUPADA†STRA." L. 50. and 51.

To proceed with the subject. In general the different sorts of verse, which are contained in the subjoined synoptical table of uniform metre, are used singly, and the stanza is consequently regular: but some of the species, differing little from each other, are intermixed. Thus the *Indravajra*, measured by a dactyl between two epitrites (3d and 2d), and the *Upéndravajra*, which begins with a chāmbus, may be mixed in the same stanza. This sort of mixt metre (an example of which has been just now exhibited) is denominated *Upajāti*: it of course admits fourteen variations;† or, with the regular stanzas, sixteen. The relief which it affords from the rigorous laws of the uniform stanza, render it a favorite metre with the best poets. It has been much employed by CA'LIDA'SA, in whose poem on the birth and marriage of PA'RVATI, three out of the seven cantos, which compose it, are in this metre: as are eight out of nineteen in his heroick poem on the glory of the race of RAGHU.

THE last mentioned work, which is entitled *Raghuvars'a*, and is among the most admired compositions in the *Sanskrit* tongue, contains the history of RA'MA and of his predecessors and successors from DIET'PA father of RAGHU, to 'AGNIVERN'A a slothful prince who was succeeded

* VICHITRAVIRYA was husband of PA'NDU's mother.

† They have distinct names, which are enumerated in the *Ch'handāmārtan'da*, cited by the commentator on the *Vṛtta Ratnācara*; as *Maniprabhā*, *Gāntimati* &c.

by his widow and posthumous son. The first eight cantos relate chiefly to RAGHU, with whose history that of his father DILĪPA, and of his son AJA, is nearly connected. The next eight concern RA'MA, whose story is in like manner intimately connected with that of his father DAS'ARATHA and of his sons CUS'A and LAVA. The three concluding cantos regard the descendants of CUS'A, from ATIT'HI to AGNIVERN'A, both of whom are noticed at considerable length; each being the subject of a single canto, in which their characters are strongly contrasted; while the intermediate princes, to the number of twenty, are crowded into the intervening canto, which is little else than a 'dry genealogy.

THE adventures of RA'MA are too well known to require any detailed notice in this place. The poet has selected the chief circumstances of his story, and narrates them nearly as they are told in the mythological poems and theogonies; but with far greater poetical embellishments. Indeed the general style of the poems esteemed sacred, (not excepting from this censure the *Rāmāyan'a* of VA'LMĪCI,) is flat, diffuse, and no less deficient in ornament than abundant in repetitions; and it is for this reason, that examples have been selected, for the present essay, exclusively from the celebrated prophane poems. RA'MA's achievements have been sung by the prophane as frequently as by the sacred poets. His story occupies a considerable place in many of the *Purān'as*, and is the sole object of VA'LMĪCI's poem, and of another entitled *Ad'hyātma Rāmāyan'a*, which is ascribed to VYA'SA. A fragment of a *Rāmāyan'a* attributed to BAUD'HĀYANA is current in the southern part of the Indian peninsula; and the great philosophical poem, usually cited under the title of *Tôga va i'h'h*, is a part of a *Rāmāyan'a*, comprising the education of the de-

vout hero. Among prophane poems on the same subject, the *Raghu-vans'a* and *Bhat'ficāvy'a*, with the *Rāg'hava pāndaviya* before mentioned, are the most esteemed in *Sanscrit*, as the *Rāmdyana* of TULAS'IDA'SA and *Rāmachandricā* of CE'SAVADA'SA are in *Hindī*. The minor poets, who have employed themselves on the same topick, both in *Sanscrit* and in the *Prācrit* and provincial dialects, are by far too numerous to be here specified.

THE other poem of CA'LIDA'SA abovementioned, though entitled *Cumāra sambhava* or origin of CUMA'RA (who is son of PA'RVATĪ), closes with PA'RVATĪ's wedding. It has the appearance of being incomplete; and a tradition runs, that it originally consisted of twenty-two books. However, it relates the birth of the goddess as daughter of mount HIMA'LAYA; and celebrates the religious austerities by which she gained S'IVA for her husband; after CANDARPA, or Cupid, had failed in inspiring S'IVA with a passion for her, and had perished (for the time) by the fiery wrath of the god. The personages, not excepting her father, the snowy mountain, are described with human manners and the human form, and with an exact observance of *Indian* costume.

THE following stanza from a poem in mixed language, upon the same subject (the birth of CUMA'RA), is selected as a further example of *Upajāti* metre, and as a specimen of the manner in which *Sanscrit* and *Prācrit* are sometimes intermixed. It is quoted for that purpose in the *Pingala-vr̥tti*.

बालःकुमारःसह मुउधारी उपअर्णिना हमु रुक्मणरी ।

अर्णिशंकाइविषंभिकारी गतिर्भविचो किलकाहमारी ॥

Bālah Cumārah; sa eh'ha-mun'da-d'hārī. Upāā-hinā hamu écca-n-ārī.
Ahar-n is'am c'hāī viṣham bhic'hārī. Gatir bhavitrī cila cá hamārī.

DE'VI, grieving over her infant son CUMA'RA or SCANDA, says,

"The child is an infant, but he has six mouths [to be fed]: I am a helpless, solitary female: night and day my mendicant husband swallows poison; what resource is there, alas, for me!"

AN instance of the same measure used in the *Marahat'sa* (*Mahārāshtra*) language is quoted by the commentator on the *Vṛtta-retnācāra*. It appears, however, from the rhymes, that the verse is there subdivided by a pause after the 5th syllable.

THE variety of the *Upajāti* metre is increased by the further mixture of two sorts of iambic measure named *Vān'sast'ha* and *Indravans'd*. The first is composed of a choriambus between two diambis: in the second, the first disyllable is a spondee instead of an iambic. Instances of this mixt metre occur in VA'LMICI'S *Rāmāyaṇa**, in the *Srī bhāgavata Purāna*† and in a metaphysical and theological drama, entitled *Prabūd'ha Chandrōdaya*‡

THE following example from the drama now mentioned, exhibits the combination of those four sorts of metre in a single stanza.

Vidyā-prabōdhōdaya-janma-bhūmir, Vārānaśi mucti-purī niratyayā
Atah culōchch'hēda-vid'him vid'hitfur nivaśtum atrēch'hati nityam ēva sah.

विद्याप्रबोधेदयजन्मभूमिर्वाणसोमुक्तिपुरीनिरत्यया ।
अतःकुलोच्छेदविधिविधितुर्निबन्धमवेक्ष्यनित्यमेवसः ॥

"*Vārānaśi*, the indestructible city of eternal salvation, is the native land of science and intellect: hence, one desirous of observing the precepts by which a continuance of family is cut off, [and final beatitude obtained], is solicitous to dwell there continually."

* In a passage of the *Sundara Cānda*.

† Book 10th.

‡ Among the persons of this drama are the passions and vices {pride, anger, avarice &c.) with the virtues, (as pity and patience;) and other abstract notions; some of which constitute very strange personifications. The author was CRIŚHN'A PANDITA.

THE same term (*Upajāti*), as descriptive of mixt metre, has been also applied to the intermixture of two Isondaic measures named *Vistāra* and *Śālinī*: which are very similar, the first having an anapaest, the other a cretic, between a dispondeus and ad epitivius, with a pause ~~at the~~ fourth syllable. Analogous to the first of these are the *Rat'hoddhātā*, and *Swāgatā* measured by an anapaest preceded by two trochees, and followed in the one by two iambics; and in the other by an ionic. These and the preceding are metres in very common use with the best poets: and instances of them, will occur in subsequent extracts chosen for the sake of other measures with which they are joined.

THE several sorts of metre above described are, like the two last, also employed separately: for instance the first cantos of the *Naiṣad'hya* of Ś'RĪHARṢHA, and *Cirātārjunīya* of BHĀ'RAVĪ, as well as that of the epick poem of MA'GHĀ, are in the iambic measure called *Vansast'ha*; which recurs again in other parts of the same poems: especially in the *Cirāta*, of which four books out of eighteen are in this measure.

THE first of the works just now mentioned is a poem in twenty-two cantos on the marriage of NALA king of *Nishad'ha*, and DAMAYANTĪ daughter of BHĪMA king of *Vidarbha*. It is a favourite poem on a favourite subject: and though confessedly not free from faults, is by many esteemed the most beautiful composition in the *Sanskrit* language. The marriage of NALA and DAMAYANTĪ, his loss of his kingdom by gaming, through the fraudulent devices of *Calī* disguised in the human form, his desertion of his wife and his transformation, her distresses, her discovery of him, and his restoration to his proper form and to his throne, are related in another poem already noticed under the title of

Nalodaya: their adventures likewise constitute an episode of the *Mahābhārata*,* and are the subject of a novel in prose and verse, by *Trivikrama bhāṭṭa*, entitled *Nalachampū* † or *Damayantī cat'hā*. *Srīhama*'s poem, though containing much beautiful poetry according to the Indian taste, is very barren of incident. It brings the story no further than the marriage of *NALA* and *DAMAYANTĪ*, and the description of their mutual affection and happiness which continues notwithstanding the machinations of *Calī*. The romantick and interesting adventures subsequent to the marriage, as told in the *Nalodaya*, are here wholly omitted: while the poet, with a degree of licentiousness, which is but too well accommodated to the taste of his countrymen, indulges in glowing descriptions of sensual love.

THE following example of *Vanśast'ha* metre is from the introduction of the *Naishadh'geya*. To render the author's meaning intelligible, it may be necessary to premise, that the mere celebrating of *NALA* and *DAMAYANTĪ* is reckoned sufficient to remove the taint of a sinful age; and is so declared in a passage of the *Mahābhārata*.

Vanśast'ha metre.

Pavitram atrātanutē jagad yugē, smṛitā, rasa-cibhālanayēva yat, cat'hā ;

Cat'ham na sā mad giram, kvilām api, swaśṣvinīm ēva, pavitrasyiṣyati.

पवित्रमत्रातनुते जगद्गुणे स्मृतारसश्चासनयेवयत्कथा ।

कथंनसा मद्गिरमाविलोमपि स्वसेविनीमेवपविष्यति॥

“ How should a story, which, being remembered, purifies the world in the present age, as it were by an actual ablution, fail of purifying my voice, however faulty, when employed on this narration.” 1. 3.

* From the 53d to the 79th chapters of the *Vanaparva*.

† A composition, in which prose and verse are intermixed, is called *Champū*.

IN the following passage from BHA'RAVĪ's *Cirātārjunīya*, the last stanza is an example of the *Mālinī* metre; and the preceding one, of the *Pushpitāgrā*; which will be noticed further on: all the rest are in the *Vans'ast'ha* measure. It is the close of a reproachful speech of DRAU-PADĪ to her eldest husband YUD'HISHT'HIRA, inciting him to break the compact with DURYÓD'HANA, by which the PA'NDAVAS had engaged to remain twelve years in exile.

इमामहवेदनावर्कधियंविचिचरूपाःखलुचित्तुनयः ।
विचिन्तयन्त्याभवदापदंपरंरुजनिचेतःप्रसभममध्यः ॥ ३७ ॥
पुराधिरूढःशयनमहाधनविबोधासुयुक्तनिगीतिमङ्गलैः ।
अदभ्रदर्शामधिशय्यसस्यलोज्ज्वासिनिद्रामशिवैःशिवास्तैः ॥ ३८ ॥
अनारतयौमणिपीठशायिनावरञ्जयद्वाजशिरःस्रजंरजः ।
निवीदतस्तौचरौवनेषुतेमृगद्विजालूनशिखेषुवर्हिषाम् ॥ ३९ ॥
पुशपनीतंनृपमणीयकंद्विजानिरेधिवायदेतदन्धसा ।
तदद्भुतेवन्धफलाशिनःपरंपरैरित्काशंयशसासम्बपुः ॥ ४० ॥
द्विभ्रमिन्नायदियं दशाततःसमूलमुन्मूलयतीवमेमनः ।
परैरपत्यौसितवीर्यसंपदंपरभवापुंसवयवमाग्निनाम् ॥ ४१ ॥
विहायशान्तिंनृपधामतत्पुनःप्रसीदसन्धेर्विवाधायविद्विषाम् ।
वृजनिश्चून्वधूयनिस्पृहाःशमेनसिद्धिंमुनयो नभूभृतः ॥ ४२ ॥
परःसराधामवतांयशोधनाःसुदुःसहंप्राप्यनिकारमीदृशं ।
भवादृशास्त्रेदधिकुर्वतेपरस्मिन्मयाहन्तामनस्त्रिता ॥ ४३ ॥
अवह्तामेवनिस्त्रिभङ्गमश्विरयुपत्यैर्विदुस्त्वसाधनं ।
विहायलक्ष्मीपतिलक्ष्मकामुर्कंजटाधरःसन्जुज्ज्वलीयवावकं ॥ ४४ ॥
नसमयपरिरक्षणांश्चमनेनिहृतिपरेषुपरेषुभूरिधातः ।
अरिषुर्विजयार्थिनःक्षिप्रैःक्षिप्रैःक्षिप्रैःक्षिप्रैःक्षिप्रैः ॥ ४५ ॥
विधिसमयनियोगादीभिर्संसारजिह्वाशिविलबहुमगाधेमग्रमापत्ययोधै ।
रिपुतिमिरमुदसोदीयमानंदिनादैर्दिनहन्तामिबलक्ष्मीकांसममेतुभूयः ॥ ४६ ॥

"I do not comprehend this thy prudence; for opinions are indeed various: but anguish forces itself on my mind, when considering thy extreme distress. Thou, who didst formerly repose on a costly couch, and wert wakened with auspicious praise and song, now sleepest on the ground strewn with pungent grass, and art roused from thy slumbers by the dismal howlings of shrikala. Thy feet, which, resting on a footstool adorned with precious stones, were tinged by the dust of the blossoms in the chaplets worn by prostrate monarchs, now tread the wilderness where the tips of sharp grass are cropped by the teeth of flags. Thy person, O king, which formerly gained beauty by feeding on the blessed remnant of the feast given to holy men, now wastes with thy glory, while thou feedest on the fruits of the forest. That thou art reduced to this condition by the act of thy enemies, narrows up my soul. To the valiant, whose courage is unsubdued by the foe, misfortune is a triumph. Relinquishing peace, O king, be alive and rouse thy energy, for the slaughter of thy foes. Placid saints, not kings, attain perfection, disarming their enemies by patience. If persons such as thee, whose honour is their wealth, who are leaders of the brave, submit to such insupportable disgrace, then is magnanimity destroyed without resource. If divested of courage, thou deem submission the means of lasting ease, then quit thy bow, the symbol of a sovereign, and, becoming a hermit, feed here with oblations the purifying flame. Adherence to the compact is not good for thee, valiant prince, while thy foes compass thy disgrace: for kings, ambitious of victory, scruple not the use of stratagem in treating with enemies. Thee, who by force of fate and time art now sunk in the deep ocean of calamity, dull with diminished splendour, and slow to enterprise, may fortune again attend, as thou risest like the sun with the new born day, dispelling hostile gloom." l. 37.—46.

To return to the enumeration of analogous sorts of metre. A true Spondeeic metre, named *Vidyumālā*, consisting of four spondees, with a pause in the middle of the verse which virtually divides the tetraстich into a stanza of eight, is often mixed, as before observed, with the metre termed *Gityāryā*, containing the same quantity in a greater number of syllables.

OTHER measures also containing the same quantity, but in a greater number of syllables, occur among the species of uniform metre. The subjoined note * exhibits several species, in which the verse is divided

* *Rucnavati* or *Champacāmālā* composed of alternate dactyls and spondees; *Mattā* measured by three spondees with four short syllables before the last; *Pan'ava* containing a spondee and

by the position of the pauses into two parts equal in quantity, and some of them equal in number of syllables. Further instances are also stated in the notes, of metre containing the same quantity similarly reducible to equal feet.* Some of the species of metre, which contain a greater number of syllables, are reducible, in conformity with the position of their pauses, to this class.†

ALL these varieties of metre have a great analogy to the *Mātrāsamāca* and other species before described, which similarly contain the quantity of 16 short syllables or 8 long; reducible to four equal feet.

AMONG the kinds of metre described at the foot of the preceding paragraphs, the *Dōd'haca*, *Tōtaca* and *Pramitācsharā* are the most common. A stanza in the anapæstic measure named *Pramitācsharā*, in which each verse exhibits alliteration at its close, has been already quoted from the fifth canto of the *Ciratājuniya* of BHARAVI. The specimen of anapæstic measure called *Tōtaca*, which will be here cited from the close of the *Nalodaya*, is a further instance of alliteration introduced into every stanza of this singular poem.

TÓT'ACA.

Ari-sanhatir asya vanéshu s'uchām padam āpadam āpad ama' 'padama'.

Suc'hadan cha yat'haiva jana'ya Harim yataw a'yatama'ya tam a'yata Ma'.

daçtyl, and an anapæst and spondee; *Bhramaravilasitā* measured by two spondees, four short syllables and an anapæst; *Jalōd'hatagatā* composed of alternate amphibrachys and anapæsts; and several other species; as *Cusuma vibhitra*, *Manigun'a nicara*, *Cudmala dantī*, *Lalanā* &c.

* *Dōd'haca* composed of three daçtyls and a spondee; *Tōtaca* containing four anapæsts; *Pramitācshara*, measured by three anapæsts with an amphibrachys for the second foot; *Mālā*, a species of *Chandravartā*, and some others.

† Thus *Mattācritā* combines two simple kinds, the *Vidyūnmālā* and *Chandravartā*. So *Craunchapadā*, is composed of two species beforementioned, the *Champakamālā* and *Manigun'a*.

अरिर्लक्ष्मिस्तस्मिन्नेषुषुषीपदमापदमापदमापदमा ।

कुर्वन्पयवेवजमायहरियतमायतमायतमायतमा ॥ ४६ ॥

"THE luckless and despondent croud of his foes found in the forests a calamitous place of sorrow; and prosperity was constant to him, who gave happiness to a sincerely affectionate people, as the clings to HARI, who blesses the guileless" 4. 46.

It has been before said, that, in several sorts of metre, the pauses would justify the division of the stanza into a greater number of verses than four: and instances have been shown, where either the number of syllables, or the quantity, would be the same in each verse of a stanza of eight, twelve, or even sixteen short verses. In the following species of metre, the verses of the stanza, subdivided according to the pauses, are unequal.

THE *Sārdūlavicitā*, a very common metre, of which examples occur in the former volumes of Asiatick Researches,* is a tetrastich in which the verse consists of nineteen syllables divided by the pause into portions of twelve and seven syllables respectively. The following instance of this metre is from the close of the first book of MA'GHĀ's epick poem; where NA'ĀRĒDA, having delivered a message from INDRA, inciting CRĪSHN'A to war with SIS'ŪPĀ'LA, king of the *Chédīs*, departs, leaving the hero highly incensed against his kinsman and enemy.

अमित्युक्तवतोऽथशर्ङ्गिणइतिव्याहृत्यवाचनमसस्मिन्नुत्पतिनेपुरःसुरमुनाविन्देःश्रियंविभ्रति ।

शब्दनामनिर्वाणा एपिमुनःक्रुद्धस्यचैद्यंतिदोषीबभूवुकुटीछलेनमदनेदेहसुकारस्पदम् ॥ ७५ ॥

O'm ityuktavatō't'ha sa'rngin'a, ki

Vyāhrītya vāchan, nabhas

Tasminn utpatitē purah sura-munāv

Indōh s'riyam vibhrati,

S'atrún'a'm anis'am vinás'a pis'unah,
 Crudd'hafya Chaidyam prati,
 Vyómníva, bhrucutí ch'haléna, vadané
 Cérus' chacár'áspadam.

'WHILE the divine sage, having delivered this discourse, ascended the sky, bearing on his front the radiance of the moon; the hero, armed with a bow, uttered an expression of assent; and the frown, which found place on his brow wreakful against the prince of the *Cédis*, was as a portent in the heavens, foretoking destruction of his foes.' 1 75.

THE *Mandácrántá*, which is the metre in which the *Még'hadúta* is composed, has pauses subdividing each verse of seventeen syllables into three portions, containing four, six and seven syllables respectively: viz. two spondees; two pyrrichii and an iambic; a cretic, trochee and spondee. The *Harin'í* differs from the preceding in transposing the first and second portions of the verse and making the third consist of an anapæst between two iambics. An instance of it will be subsequently exhibited.

THE example of the first mentioned metre, here inserted, is from the *Még'há-dúta*. This elegant little poem, attributed as before observed to CA'LIDA'SA, and comprising no more than 116 stanzas, supposes a *Yacsha* or attendant of CUVE'RA to have been separated from a beloved wife by an imprecation of the god CUVE'RA, who was irritated by the negligence of the attendant in suffering the celestial garden to be trodden down by INDRA'S elephant. The distracted demigod, banished from heaven to the earth, where he takes his abode on a hill on which RA'MA once sojourned,* entreats a passing cloud to convey an affectionate message to his wife.

* Called *Rámagiri*.

Mandācrántā metre.

जातं वंशे भुवनविदिने पुष्करवर्तकानां जानामिवा प्रकृतिपुरुषं कामरूपमद्योनः ।
 तेनादित्वं त्वयि विधिबंशदूरबन्धुर्गतेऽहं यज्जामोघा वरमधिगुणे नाधमे लब्धकामा ॥ ६ ॥
 संतपानां त्वमसि शरणं तत्पयोदप्रियायाः संदेशं मेहरधनपति क्रोधविशेषितस्य ।
 गन्तव्याने वसतिरलका नामयक्षे च्चरणं बाह्ये मन्त्रानस्थितहरशिरस्सन्निधाधैतद्वन्द्या ॥ ७ ॥

6. Játam vans'é, bhuvana-vidité, pushcará-vartacánám,
 Jánámi twám, pracríti-puruṣhan, cámarúpam, Maghónah.
 Téná' rt'hitwan, twayi, vid'hi-vasat dúraband'hur, gató'ham.
 Yáchnyá móghá varam ad'higúné, n'ád'hamé labd'hacámá.
7. Santaptánán twam áti s'aran'an ; tat, payóda, priyáyáh
 Sandés'am mé hara, d'hanapati-cród'hævisléshitasya.
 Gantavyá té vasatir Alacá náma yachhés'warán'am.
 Váhyódýána-ś'hita-hara-s'iras'-chandricá-d'hanta-harmyá.

“ I KNOW thee sprung from the celebrated race of diluvian clouds, a minister of INDRA, who dost assume any form at pleasure : to thee I become an humble suitor, being separated by the power of fate from my beloved spouse : a request preferred in vain to the noble is better than successful solicitation to the vile. Thou art the refuge of the inflamed : therefore do thou, O cloud, convey to my beloved a message from me who am banished by the wrath of the god of riches. Thou wilt repair to *Alacá* the abode of the lord of *Yachhas*, a palace of which the walls are whitened by the moonbeams from the crescent on the head of *S'IVA*, who seems fixed in the grove without.” 6 and 7.

THE *S'ic'harin'í*, also a common metre, distributes seventeen syllables into portions of six and eleven; an iambic and two spondees in the one, and a tribrachys, anapæst, dactyl, and iambic in the other. This is the metre of the *Ananda laharí*, a hymn of which SANCARA'CHARYA is the reputed author, and which is addressed to *S'IVA'*, the *Sacti* or energy of *S'IVA* or MAHA'DE'VA. It comprises a hundred stanzas of orthodox poetry held in great estimation by the devout followers of SANCARA: the devotional poetry of the *Hindus* does not usually employ metre of so high an order.

EXAMPLES of this measure will be shown in a subsequent extract from a work of a very different kind: a drama, by BHAVABHŪTI entitled *Mālati Ma'd'hava*.

THE *Mālinī*, consisting of fifteen syllables, places two tribrachys and a spondee in the one subdivided portion of the verse, and a cretic, trochee and spondee in the other. An instance of it occurs in a former extract from the *Cirātārjuniya*. The following example of this metre is from the drama abovementioned. The passage is descriptive of a love-sick maid.

Mālinī metre.

परिमृदितामृगलीक्ष्मणमङ्गप्रवृत्तिः केवमप्यपरिवारमार्जनाभिः क्रियासु ।
कलयति च हिमंशोर्निष्कलंककस्तुत्सीमभिनवकरिदन्तच्छेदकान्तःकपोलः ॥ २२ ॥

Parimrīdita-mṛṅgālī-ṣṣmā'nam angam ; pravṛttih
Cat'ham api parīva'ra-prārt'hanābhīh cṛiyāsu.
Calayati cha himāns'or niṣhcalancasya lacṣhmīṃ
Abhinava-cari-danta-chch'hēda-cāntah capōlah.

' Her person is weary like bruised threads of a lotos ; scarcely can the earnest intreaties of her attendants incite her to any exertion : her cheek, pale as new wrought ivory, emulates the beauty of a spotless moon ' 1. 22.

THE *Praharshini*, containing thirteen syllables, separates a molossus, from two pyrrichii, as many trochees and a spondee. An example of it will be shown in a subsequent extract from BHAVABHŪTI's drama.

THE *Ruchrā*, with the same number of syllables, disjoins two iambics, from two pyrrichii, a trochee and cretic. The opening stanza of the *Bhāticāvya* may serve as an instance of this metre. The poem bearing that title, is on the subject of the adventures of RA'MA : it is comprised in 22 cantos. Being composed purposely for the practical illustration of grammar, it exhibits a studied variety of diction in which words anoma-

~~lessly~~ inflected are most frequent. The style, however, is neither obscure nor inelegant: and the poem is reckoned among the classical compositions in the *Sanskrit* language. The author was BHARTṚHARI: not, as might be supposed from the name, the celebrated brother of VICRAMA'DITYA: but a grammarian and poet, who was son of S'RÍD'HARA SWA'MÍ, as we are informed by one of his scholiasts VIDYA' VINÓDE.

Ruchirá metre.

अभून्नुपेविबुधसखः परंतपः श्रुतान्निभोदशरथइत्युदाहृतः ।

गुणैर्वर्भुवनहितच्छेनयंसनातनः पितरमुपागमत्स्वयम् ॥ १ ॥

Abhūn nrīpó, vibud'ha-sac'háh, parantapah, s'ruánwitó, Das'arat'ha ityudahrítah,

Gūnair varam, bhuvana-hita-chch'haléna, yañ Śanátanah pitaram upágamat swayam.

' He, whom the eternal chose for a father, that he might benefit the world [in a human form,] was a king, a friend of the gods, a discomfiter of foes, and versed in science: his name was DAS'ARAT'HA. He was a prince eminent for his virtues.' I. 1.

THE *Suvadaná* distributes twenty syllables in three portions of the verse: one containing two spondees and a bacchius; the second four short syllables and an anapæst; the third a spondee, pyrrichius, and iambic. The *Sragd'hará*, a very common metre, differs from it, only in the third portion of the verse, which contains a trochee, spondee and bacchius: but here the number of syllables in every subdivision is equal: viz. seven. In all the other instances above described, the subdivisions of the regular verses were unequal.

THE following sorts of metre, which are very usually employed, have no pauses but at the close of the verse. The *Druta vilambitá* contains in each verse two anapæsts preceded by three short syllables and a long one, and followed by a trochee. Instances of this measure have been already cited in an extract from the *Cirátárjuniya*. The *Sragviní* is

measured by a trochee, spondee and iambic repeated; as the *Bhujan-gaprayātā* is by a similar repetition of an iambic, trochee and spondee. Both sorts of metre are of frequent occurrence in classick poems.

THE *Vasantatilaca*, which consists of a spondee, iambic, tribrachys, daetyl, trochee and spondee, is one of the metres in most general use. It commonly occurs as a change from other metre. But the whole 5th canto of MA'GHA'S poem is in this measure. The *Chaura panchāsica*, a short poem before described, is in the same metre, and so is a pathetick elegy on the death of a beloved wife which occurs in the *Bhāmanī vilāsa* a collection of miscellaneous poetry by JAGANNA'THA Pandita. It begins thus:

Vasantatilaca.

दैवेपसम्बद्धं न शालिनिर्द्धन्तजातियातेषसंप्रतिदिर्बप्रतिबन्धुरसि ।

कसौमनःकथयितस्मिजामबन्ध्याकश्शीतलैः शमयितावचनैस्तबाधि ॥

' Since fate, alas! is become adverse, and the gem of kindred is departed towards heaven; to whom, O my soul, wilt thou tell thy grief? and who will appease thy anguish with refreshing words?'

THE following passage from some *Hindī* poem, is quoted in NA'R A'Y-AN'A BHAT'T'A'S commentary on the *Vṛitta Retnācara* as a specimen of this metre in the *Cānyacubja* dialect.

कच्छैरूपजवर्तेनुहलीखुहाजलीबोपकामेहमहोचक्रपीरखोडी ।

जोभेटिकैबिरखपीरमसाखमेरीबैभानिदूतिपठईकहिबातगोपी ॥

Candarpa-rūpa jaba tēn tumha līnha, Crīṣṇa! Lōcōpacāma hama'hfēn, bahu-pīra, ch'hōrī.
Jau bhēt'icain viraha-pīra naśāū mēri. Yain bhēnti dūti path'āi, cahi bāta, Gōpī.*

* Short vowels, when final, are so faintly sounded, that they are usually omitted in writing the provincial languages of *India* in Roman character. But they have been here preserved at the close of words; being necessary, as in *Sanskrit*, for correctly exhibiting the metre.

“ *CĀYANA*, since thou didst assume the form of Cupid, I have neglected worldly affairs, suffering much anxiety. Relieve by thy presence the pain of separation which I endure. Such was the message, with which the GŌPI dispatched her embassadors.”

V. *Śloka* or *Vactra*.

THE most common *Sanskrit* metre is the stanza of four verses containing eight syllables each: and denominated from the name of the clafs, *Anushtubb*. Several species of it have been described. Two very simple kinds of it occur, consisting of iambic, or trochaic feet exclusively.* The rest are included in one general designation.† But several analogous species are comprehended under the denomination of *Vactra*. Here the laws of the metre, leaving only the first and eighth syllables indeterminate, require either a bacchius or an amphibrachys ‡ before the eighth syllable, and forbid an anapæst or tribrachys after the first; as also in the 2d and 4th verses of the stanza, an amphimacer. A variety of this metre introduces a tribrachys before the 8th syllable in the 1st and 3d verses, and a bacchius in the 2d and 4th. || And another sort, ¶ which admits five varieties, requires the penultimate syllable to be short in the 2d and 4th verses; and introduces before the 8th syllable of the 1st and 3d verses, a dactyl, anapæst, tribrachys, amphimacer or molossus.

* The first termed *Pramāni*, the other *Samāni*. Considered as a species of uniform metre, the first is also named *Nagaswarupini* or *Matallikā*; and the second is denominated *Mallicā*. There is also a regular measure which alternates trochees and iambics, and is denominated *Mānatācāricā*; and another, named *Chitrapadā*, consisting of two dactyls and a spondee.

† *Vitāna*.

‡ The metre is named *Pathyā* when an amphibrachys is introduced in the 2d and 4th verses, some say in the 1st and 3d.

|| *Chapalā*.

¶ *V'pulā*.

THE metre, which is most in use, is one of the species now described, in which the number of syllables is determinate (viz. 8); but the quantity variable. CA'LIDA'SA appropriates to this metre the term *S'lōca* (abbreviated from *Anushtubh s'lōca*); and directs, that the fifth syllable of each verse be short; the sixth, long; and the seventh alternately long and short. The mythological poems under the title of *Pura'n'a*, and the metrical treatises on law and other sciences, are almost entirely composed in this easy verse: with a sparing intermixture of other analogous sorts, and with the still rarer introduction of other kinds of metre. The varieties of the *Anushtubh S'lōca*, which most frequently occur, make the 5th, 6th and 7th syllables of the 1st and 3d verse all long or all short; or else the 5th long with 6th and 7th short. Thus varied, it is much used by the best poets. CA'LIDA'SA has employed it in the 2d and 6th cantos of his poem entitled *Cumāra sam'hava*; and in the 1st, 4th and several others of the *Raghuvams'a*. The 2d and 19th cantos of MA'G'HA'S poem are in this metre, and so is the 11th of the *Cirātār-junīya*.

THE examples, here subjoined, are from MA'G'HA'S poem. One passage is part of a speech of BALAKA'MA to CRISHN'A, urging him to the immediate commencement of hostilities against S'IS'UPA'LA: the other is extracted from UDD'HAVA'S reply, dissuading CRISHNA from instant war and advising his previous compliance with YUD'HISHT'HIRA'S invitation to assist at a solemn sacrifice which the king was on the point of celebrating at *Indraprast'ha*.

सखामरीवान् शत्रुबद्धनिमस्त्रौहिकार्थ्यतः । स्थानामिवाग्निवेचसहजप्राज्ञतावपि ॥ ३६ ॥ अथर्कोऽपिणासश्चिन्निवेणा
यकारिणा । अथवाहपकारैरिजश्चान्नमेतयोः ॥ ३७ ॥ अथविषज्जनस्यैवोहृत्किर्णोद्गताहरे । अथदूषकान्दूषहि

* The just King, and his Ministers, relying on thee for an associate capable of sustaining the heaviest burden, are willing to undertake the task of a solemn sacrifice. Even to enemies, who court them, the magnanimous show kindness; as rivers convey to the ocean, the rival torrents from the mountains. Violence, used against foes by the strong, is at length successful: but friends, once offended, are not easily reconciled even by compliances. Thou thinkest, that the slaughter of the foe will most gratify the inhabitants of heaven: but far better is it to present offerings, which are desired by the deities, who devour oblations. What the virtuous offer, under the name of ambrosia, in flames, whose tongues are holy prayers, was the splendid ornament of the ocean churned by the mountain *Mandara*. The promise made by thee to thy father's venerable sister, to forgive her son a hundred offences, should be strictly observed. Let the intellect of a good man be sharp without wounding; let his actions be vigorous, but conciliatory; let his mind be warm without inflaming: and let his word, when he speaks, be rigidly maintained. Before the appointed hour, even thou art not able to destroy the tyrant, on whom thyself conferred that boon; no more than the sun can prematurely close the day, which he himself enlightens. 2.103—110.

V. *Compound metre.*

INSTANCES of compound metre have been already exhibited under the designation of *Upajāti*, consisting of two kinds of simple metre variously combined: two of these combinations are repeated under the head of half equal metre with the contrasted names of *Ac'hyānact* and *Viparītā'hyānact*. Other species of metre, belonging to this class, are in use among eminent poets: particularly the *Pushpitāgra*', and *Aparavāstra*'. In the first, both verses are terminated by two trochees and a spondee, and begin with four short syllables, one verse interposing a pyrrichius, and the other a dactyl. In the next species, both verses are terminated by three iambics, and begin like the preceding with four short syllables; but one verse interposes a single short syllable, and the other a trochee.

EXAMPLES of the first of these mixed measures are very common. One instance has been already exhibited in a quotation from the 1st

“ Thus did the chase, like an artful mistress, allure the king forgetful of all other business, and leaving to his ministers the burden of the state, while his passion grew by indulgence.

“ The king, without his retinue, passed the night in some sequestered spot, reclining on a bed of leaves and blossoms, and enlightened by the flame of wild herbs. At dawn, being awakened by the flapping of his elephant's ears in place of the royal drums, he delighted in listening to the sweet and auspicious tones of chirping birds.

“ One day, pursuing an antelope, and outstripping his attendants, he arrived, with his horse foaming with fatigue, on the bank of the *Tamasa* a stream frequented by the devout. In its waters a deep sound caused by the filling of a vase, was mistaken by the king for the grumbling of an elephant; and he directed an arrow towards the spot whence the sound proceeded. By this forbidden act, *DAS'ARAT'HA* transgressed: for even the wise, when blinded by passion, deviate into the pathless waste. “ Ah father!” was the piteous cry which issued, and the king, anxious, sought its cause among the reeds. He found the vase; and, near it, a hermit's son pierced by his arrow; and he stood amazed as if internally wounded. The king of glorious lineage, who had already alighted from his horse, eagerly inquired the parentage of the youth; who, resting on the vase, with feeble accents said “ he was son of a hermit, but no priest.” Instructed by him, the king conveyed the wounded youth to his blind parents and to them as they approached their only son, he related his mistaken deed. The unhappy pair, lamenting, conjured the king to draw the arrow from the breast of their wounded son. The youth was dead. The aged hermit, ratifying his curse with tears instead of water for a libation, pronounced this imprecation on the king. “ In thy extreme age thou shalt reach, thy fated time, with grief like mine for a beloved son.” While he spoke, as it were a serpent afflicting first and then discharging fatal venom; *CAUS'ALYA*'s lord, conscious of the first offence, addressed him thus: “ Thy curse has fallen like a boon on me, who have not seen the beauteous countenance of offspring; as fire, fed with fuel, fertilises the soil which it burns.” The king then said “ for me, who merciless deserve death at thy hands, what are thy commands?” The holy hermit asked fuel for the funeral pile; he and his wife resolving to follow their son in death. The king, whose attendants were now arrived, promptly fulfilled his command, and remained dejected, bearing within him the hermit's curse, a cause of his future destruction, as the ocean embraces the devouring fire. Again the king addressed him. “ Wise hermit! what shall this shameless criminal, who deserves death from thee, now perform.” He desired the funeral flame to be duly lighted: and the king presented the fire for him and his wife and son.

“ The chief of the race of *RAOHU*, attended by his army, now returned to his palace, dejected, bearing in his mind the heavy imprecation of the saint, as the ocean holds within itself the fire of destruction.’ §. 74.—89.

“ The royal and military tribe is prohibited from killing elephants unless in battle.

THIS extract exhibits, besides two stanzas of *Puspitagra** and as many of *Sundarī* metre, † both belonging to the present head. and one, of which an example was promised in this place, ‡ several others which have been before exemplified,|| and two which are less common. ¶

A SINGULAR species of variable metre is mentioned by writers on prosody, who describe it as a stanza in which the verses increase in arithmetical progression. In the instance exhibited by them the four verses of the stanza increase regularly from 8 to 20 syllables. Varieties of it are noticed in which the progression is not regular: the short verse exchanging places with the second, third, or fourth. The quantity of the syllables is in general indeterminate: but varieties are stated in which the verse consists of short syllables, either ending, or beginning with a spondee, or both ending and beginning withpondees.

A CLASS of metre, which admits an inordinate length of the verse, is known under the general designation of *Dan'data*. The verse may consist of any number of syllables from 27 to 999; and the specific name varies accordingly. § The construction of the metre requires that the six first syllables be short, and the remainder of the verse be composed of cretick feet; or, instead of the cretick foot, the bacchius. These two kinds of metre are distinguished by

* 75 and 76.

† 77 and 79, most properly the last.

‡ *Swa'gata* 78.

|| *Vasanta tilaca* 81—87 and *Upēndravajra* 88. *Ruchira* 89.

¶ *Manjūbhāshini* 74 (P. T. D. 3 l.) and *Mattamayūra* 80 (2 S+T. 1. D S.)

§ For example. *Arna*, which comprises 10 feet; *Arnava* 11; *Vyāla* 12; *Jimūta* 13; &c.

different names. A verse consisting of any number of anapæsts within the limitation abovementioned, is also comprehended under this general designation; as are verses of similar length consisting exclusively of iambick or trochaick feet. They have their peculiar denominations.

EXAMPLES of these extravagantly long verses are to be found in the works of the poet V'ANA. It is unnecessary to insert any specimen of them in this place; as an example will occur in a subsequent quotation from BHAYABHUTI'S drama.

THAT class of metre which is termed half equal, because the alternate verses are alike; comprises various sorts, which appear to be compounded of two simple kinds with an appropriate number of syllables of a determinate quantity.

ANOTHER class, in which every verse of the stanza is different, appears more complex. But, here also, the quantity as well as the number of syllables being regulated, the stanza is in fact composed of four kinds of uniform metre.

THE most common metre of this class is that called *Udgatā*. Here the number of syllables in each verse, as well as their quantity differs; the first verse comprising an anapæst, iambick, tribrachys and trochee; the second a tribrachys and anapæst with two iambicks; the third, a trochee, tribrachys and two anapæsts; * and the fourth, an anapæst, iambick, and pyrrichius with three iambicks.

* Or the third verse may consist of a trochee and dactyl, with two anapæsts; or of two trochees, with two anapæsts; and the metre is denominated, in the first instance *Saukabhacū*; in the second, *Lalitā*.

THE 19th canto of the *Chândājuntya* is in this metre; and so is the 15th canto of MA'GHA's epick poem. It begins thus:

अज्ञानवपायङ्गु मनयेन सदसि विचित्रं मधुविषः ।
मानसं च ततो वेपतिः परबुद्धिमतस्त्रिमना हि मामिनां ॥ १ ॥

But the king of the *Chândis* was impatient of the honors, which the son of *Pându* commanded to be shown in that assembly to the foe of *Mad'hu*; for the mind of the proud is envious of the prosperity of others.*

OTHER kinds of metre, in which every verse of the stanza differs in the number and quantity of the syllables, are comprehended under the general name of *Gāthā*; under which also some writers on prosody* include any sort of metre not described by PINGALA or not distinguished by a specifick appellation. The same denomination is applicable also to stanzas consisting of any number of verses other than four.† An instance of a stanza of six verses has been remarked in the *Mahābhārata*; and another example occurs at the beginning of MA'GHA's poem. ‡

द्विधा कृता क्वा किमयं दिवा कणे विधूमसेविः किमयं कृताशनः ।
गमंति रश्मी नमन्सू सारथेः प्रसिद्धमूर्ध्नि जलनं ह किमुजः ।
यत त्वधो धाम विसारि सर्वतः किमेतदित्यकुलमीक्षितं जनैः ॥ १ ॥

Dwidhā crīśātmā, cim ayam divācarō
Vid'hūma rōchih, cim ayam hutās'anah?
Gatan tirāschīnam anūru śārat'héh.
Prasidd'ham ūrdhahjwalanam havirbhujāh.
Patatyad'hō dhāma-vīśāri sarvatah,
Cim étad? ityāculam īchhitam janaih.

* HELA'YUD'HA and NA'RA'YANA' TA RA'.

† DIVA'CARA on the *Vṛtta Retnācara*.

‡ It is cited by DIVA'CARA BHAT TA as an instance of a stanza of six. Yet the scholiasts of the poem omit the two first verses, and read the stanza as a tetraſtich: one commentator, however, does remark, that copies of the poem exhibit the additional verses; and another commentator has joined them with two more verses in a separate stanza.

NA'KHA, descending from the heavens to visit CRISHNA, is thus described:

"Is this the sun self parted into two orbs? It is fire shining with light divested of smoke. The motion of the luminary, whose chariotter has no legs is distinguished by its curvature. The ascent of flame is a known property of fire. Then what is this, which descends diffusing light around?" Thus was the sight contemplated with wonder by the people. *Māg'hā* 7. 2.

VI. Prose; and Verse mixed with Prose.

I FOLLOW the example of *Sānskrit* writers on prosody, in proceeding to notice the different species of prose. They discriminate three and even four sorts, under distinct names. 1st, Simple prose, admitting no compound terms. It is denominated *Muktaca*. This is little used in polished compositions: unless in the familiar dialogue of dramas. It must undoubtedly have been the colloquial style, at the period when *Sanskrit* was a spoken language. 2d, Prose, in which compound terms are sparingly admitted. It is called *Culaca*. This and the preceding sort are by some considered as varieties of a single species named *Chūrnica*. It is of course a common style of composition: and, when polished, is the most elegant as it is the chastest. But it does not command the admiration of *Hindu* readers. 3d, Prose abounding in compound words. It bears the appellation of *Utalica prāya*. Examples of it exhibit compounds of the most inordinate length: and a single word exceeding a hundred syllables is not unprecedented. This extravagant style of composition, being suitable to the taste of the *Indian* learned, is common in the most elaborate works of their favourite authors. 4th, Prose modulated so as frequently to exhibit portions of verse. It is named *Vṛtta*.

gand'hi. It will occur without study, and even against design, in elevated compositions; and may be expected in the works of the best writers.

SOME of the most elegant and highly wrought works in prose are reckoned among poems, as already intimated, in like manner as the "*Telemache*" of FENELON and "*Tod Abels*" of GESNER. The most celebrated are the *Vāsavadattā* of SUBAND'HU, the *Das'a Cumāra* of DAN'DI, and the *Cādamburī* of VĀNA.

THE first of these is a short romance of which the story is simply this. CANDARACEṬU, a young and valiant prince, son of CHINTA-MANĪ king of *Cusumapura*,* saw in a dream a beautiful maiden of whom he became desperately enamoured. Impressed with the belief, that a person, such as seen by him in his dream, had a real existence, he resolves to travel in search of her, and departs attended only by his confidant MACARANDA. While reposing under a tree in a forest at the foot of the *Vind'hya* mountains, where they halted, MACARANDA overhears two birds conversing, and from their discourse, he learns, that the princess VĀSAVADATTĀ, having rejected all the suitors who had been assembled by the king her father for her to make choice of a husband, had seen CANDARACEṬU in a dream, in which she had even dreamt his name. Her confidant, TAMALICĀ, sent by her in search of the prince, was arrived in the same forest, and is discovered there by MACARANDA. She delivers to the prince a letter from the princess, and conducts him to the king's palace. He obtains from the princess the

* Same with *Pā'ali pura* or *Pā'ali putra*; the ancient *Palibothra*, now *Patna* As. Res. Vol. IV. p. 11.

avowal of her love; and her confidant, CALA'PATI, reveals to the prince the violence of her passion.

THE lovers depart together: but, passing through the forest, he loses her in the night. After long and unsuccessful search, in the course of which he reaches the shore of the sea, the prince, grown desperate through grief, resolves on death. But, at the moment when he was about to cast himself into the sea, he hears a voice from heaven which promises to him the recovery of his mistress and indicates the means. After some time, CANDARPACE'TU finds a marble statue the precise resemblance of VA'SAVADATTA. It proves to be her; and she quits her marble form and regains animation. She recounts the circumstances under which she was transformed into stone.

HAVING thus fortunately recovered his beloved princess, the prince proceeds to his city, where they pass many years in uninterrupted happiness.

THIS story, told in elegant language and intermixed with many flowery descriptions in a poetical style, is the VA'SAVADATTA of SUBAND'HU. There is an allusion, however, in BHAVABHU'TI's drama,† to another tale, of VA'SAVADATTA's having been promised by her father to the king SANJAYA and giving herself in marriage to UDAYANA. I am unable to reconcile this contradiction otherwise than by admitting an identity of name and difference of story. But no other trace has been yet found of the story to which BHAVABHU'TI has alluded.

† *Mâlâtî mād'hava*. A. 23.

IN the work above described, as in various compositions of the same kind, the occasional introduction of a stanza, or even several, either in the preface, or in the body of the work, does not take them out of the class of prose. But other works exist, in which more frequent introduction of verse makes of these a class apart. It bears the name of *Champū*: and of this kind is the *Nala Champū* of TRIVICRAMA before mentioned. This style of composition is not without example in *European* literature. The "Voyage de BACHAUMONT et de LA CHAPELLE," which is the most known, if not the first instance of it, in *French*, has found imitators in that and in other languages. The *Sanskrit* inventor of it has been equally fortunate: and a numerous list may be collected of works expressly entitled *Champū*.*

THE *Indian* dramas are also instances of the mixture of prose and verse; and, as already mentioned, they likewise intermingle a variety of dialects. Our own language exhibits too many instances of the first to render it necessary to cite any example in explanation of the transition from verse to prose. In regard to mixture of languages the *Italian* theatre presents instances quite parallel in the comedies of ANGELO BEOLCO surnamed RUZANTI:† with this difference, however, that the dramas of RUZANTI and his imitators are rustic farces; while the *Indian* dramatists intermingle various dialects in their serious compositions.

NOTWITHSTANDING this defect, which may indeed be easily removed by reading the *Prācīṭ* speeches in a *Sanskrit* version, the theatre

* As the *Nṛsiṃha Champū*, *Gāṅgā Champū*, *Vṛndāvana Champū*, &c.

† WALKER'S memoir on *Italian* tragedy.

of the *Hindus* is the most pleasing part of their polite literature and the best suited to the *European* taste. The reason probably is, that authors are restrained more within the bounds of poetic probability, when composing for exhibition before an audience, than in writing for private perusal or even for public recital.

THE *Sacuntalâ* by CALIDA'SA, which certainly is no unfavorable specimen of the *Indian* theatre, will sufficiently justify what has been here asserted. I shall conclude this essay with a short extract from BHAVANUTI'S unrivalled drama, entitled *Mâlâti-mâdhava*, presenting a concise argument of the play, the fable of which is of pure invention.

BHUVIRASU, minister of the king of *Padmavati*, and DEVAKATA in the service of the king of *Vidarbha*, had agreed, when their children were yet infants to cement a long subsisting friendship, by the intermarriage of MALATI daughter of the first with MADHAVA son of the latter. The king having indicated an intention to propose a match, between DEVAKATA'S daughter, and his own favourite NANDANA, who was both old and ugly, the minister is apprehensive of giving offence to the king by refusing the match; and the two friends concert a plan with an old priestess, who has their confidence, to throw the young people in each other's way, and to connive at a stolen marriage. In pursuance of this scheme, MADHAVA is sent to finish his studies at the city of the *Padmavati* under the care of the old priestess CAMANDACI. By her contrivance, and with the aid of MALATI'S foster sister LAVANGICA, the young people meet and become mutually enamoured. It is at this period of the story, immediately after their first interview, that the play opens. The first scene, which is between the old priestess and her se-

male pupil **AVALOCITA'**, in a very natural manner introduces an explanation of the previous events, and prepares the appearance of other characters, and particularly a former pupil of the same preceptor, named **SAUNDARĀ**, who has now arrived at supernatural power by religious austerities; a circumstance which her successor **AVALOCITA'** has learnt from **CAPALACUN'DALA'** the female pupil of a tremendous magician **AGHORAGHANTA'** who frequents the temple of the dreadful goddess near the cemetery of the city.

The business of the play commences; and **MA'D'HAVA**, his companion **MACARANDA**, and servant **CALAHANĀ** appear upon the scene. **MA'D'HAVA** relates the circumstances of the interview with **MA'LATI**, and acknowledges himself deeply smitten. His attendant produces a picture which **MA'LATI** had drawn of **MA'D'HAVA**, and which had come into his hands from one of her female attendants. In return **MA'D'HAVA** delineates the likeness of **MA'LATI** on the same tablet and writes under it an impassioned stanza. It is restored; and being in the sequel brought back to **MA'LATI**, their mutual passion, encouraged by their respective confidants, is naturally increased. This incident furnishes matter for several scenes. Mean time, the king had made the long expected demand; and the minister has returned an answer that "the king may dispose of his daughter as he pleases." The intelligence reaching the lovers throws them into despair. Another interview in a public garden takes place by the contrivance of **CA'MANDACI**. At this moment, a cry of terror announces that a tremendous tiger has issued from the temple of **SIVA**: an instant after, **NANDANA**'s youthful sister **MADAYANTICA'** is reported to be in imminent danger. Then

MA'D'HAVA's companion, MAGARANDA, is seen rushing to her rescue. He has killed the tiger. He is himself wounded. This passes behind the scenes. MADAYANTICA, saved by the valour of MAGARANDA, appears on the stage. The gallant youth is brought in insensible. By the care of the women he revives; and MADAYANTICA of course falls in love with her deliverer. The preparations for MA'LATI's wedding with NANDANA are announced. The women are called away. MA'D'HAVA in despair resolves to sell his living flesh for food to the ghosts and malignant spirits as his only resource to purchase the accomplishment of his wish. He accordingly goes at night to the cemetery. Previous to his appearance there, CAPALA CUN'DALA, in a short soliloquy, has hinted the magician's design of offering a human sacrifice at the shrine of the dreadful goddess, and selecting a beautiful woman for the victim. MA'D'HAVA appears as a vender of human flesh; offering, but in vain, to the ghosts and demons the flesh off his limbs as the purchase of the accomplishment of his wish. He hears a cry of distress and thinks he recognises the voice of MA'LATI. The scene opens, and she is discovered dressed as a victim, and the magician and forceress, preparing for the sacrifice. They proceed in their dreadful preparatives. MA'D'HAVA rushes forward to her rescue: she flies to his arms. Voices are heard as of persons in search of MA'LATI. MA'D'HAVA, placing her in safety, encounters the magician. They quit the stage fighting. The event of the combat is announced by the forceress, who vows vengeance against MA'D'HAVA for slaying the magician her preceptor.

THE fable of the play would have been perhaps more judiciously arranged if this very theatrical situation had been introduced nearer to

the close of the drama. BHAVASHU'NI has placed it so early in the fifth act. The remaining five (for the play is in ten acts) have less interest.

MA'LATÍ who had been stolen by the magician while asleep, being now restored to her friends, the preparations for her wedding with NANDANA are continued. By contrivance of the old priestess, who advised that she should put on her wedding dress at a particular temple, MACARANDA assumes that dress and is carried in procession, in place of MA'LATÍ, to the home of NANDANA. Disgusted with the masculine appearance of the pretended bride, and offended by the rude reception given to him, NANDANA vows to have no further communication with his bride; and consigns her to his sister's care. This of course produces an interview between the lovers, in which MACARANDA discovers himself to his mistress: and she consents to accompany him to the place of MA'LATÍ's concealment. The friends accordingly assemble at the garden of the temple: but the sorceress, CAPALACUNDALA, watches an opportunity, when MA'LATÍ is unprotected, and carries her off in a flying car. The distress of her lover and friends is well depicted: and, when reduced to despair, being hopeless of recovering her, they are happily relieved by the arrival of SAUDA'MINÍ, the former pupil of the priestess. She has rescued MA'LATÍ from the hands of the sorceress, and now restores her to her despairing lover. The play concludes with a double wedding.

From this sketch of the story it will be readily perceived, that the subject is not ill suited to the stage: and making allowance for the belief of the *Hindus* in magick and supernatural powers attainable by worship of evil beings as well as of beneficent deities, the story would not even carry the appearance of improbability to an *Indian* audience.

Setting aside this consideration, it is certainly conducted with art; and, notwithstanding some defects in the fable, the interest upon the whole is not ill preserved. The incidents are striking. The intrigue well managed. As to the style, it is of the highest order of *Sanskrit* composition: and the poetry, according to the *Indian* taste, is beautiful.

I SHALL now close this essay with the promised extract from the play here described. It contains an example, among other kinds of metre, of the *Dan'daca* or long stanza: and is selected more on this account than as a fair specimen of the drama. This disadvantage attends all the quotations of the present essay. To which another may be added: that of a prose translation, which never conveys a just notion of the original verse.

Extract from *Málati Mád'hava*. ACT 5.

MA'D'HAVA continues to wander in the cemetery.

"Human flesh to be sold: unwounded, real flesh from the members of a man. Take it. Take it."

"How rapidly the *Pais'achas* flee, quitting their terrific forms. Alas! the weakness of these beings'

He walks about.

'The road of this cemetery is involved in darkness. Here is before me "the river that bounds it; and tremendous is the roaring of the stream, breaking away the bank, while its waters are embarrassed among the fragments of skulls, and its shores resound horribly with the howling of shakals and the cry of owls screeching amidst the contiguous woods." †

Behind the scenes.

'Ah! un pitying father, the person, whom thou wouldst make the instrument of conciliating the king's mind, now perishes.'

* *Anushtubh*. अथ सपुनमञ्जपुङ्खसंगोपकल्पितं । विकीयनेमहामं (संगुह्यमो गृह्यतामिह ॥ १० ॥

† *Sárdula vicridita*. गुह्यकुपुटोरवैश्विकचटाव्यूक्तारसंविधानकन्दमोर वचस्यडाकानिभूमप्रामादमीमै
कटेः । अन्तःशीर्षकरत्नकरीरपयःसंरेखकलंकवस्रोतोनिर्गमघोरचर्चरवापारेऽश्वानंसरिन् ॥ १५ ॥

~~SECRET~~

11 [Ma'a.] * Gave me a prince! Oh, noble Ma'a'n a t'a!

...the way "Forswearing." "Thy friend is before thee, who banishing terror strikes sweet
even as death has proved his affection by the efforts of despair." "Come thy grieving. 'Thou
wicked witch that' dost feel the retribution of his crime on his own head."

ACHÓRA.] ' Ah! who is he that dares to interrupt us? '

CAPI. L.] ' Venerable Sir! He is her lover; he is MA'D'HA'LA, son of CA'MANDU'CI's friend, and a vender of human flesh ' .

MA'D'H. *in tears.*] 'How is this? auspicious maid!'

MA'L. *sighing.* I know not; Prince! I was sleeping on the terrace. I awoke here.
But how came you in this place?

MA'D'H. *blushing.*] "Urged by the eager wish that I may be 'blessed' with thy hand, I came to this abode of death to sell myself to the ghosts. I heard thy weeping. I came hither."

MA'L.] 'Alas! for my sake wert thou wandering regardless of thyself!'

MA'D'H.] ' Indeed, it is an opportune chance.

" Having happily saved my beloved from the sword of this murderer, like the moon's orb from the mouth of devouring *Rāhu*, how is my mind distracted with doubt, melted with pity, agitated with wonder, inflamed with anger and bursting with joy " †

AGHÓR] ' Ah! thou *Bráhmén* 'boy!' "Like a stag drawn by pity for his doe whom a tiger has seized, thou seekest thy own destruction, approaching me engaged in the worship of this place of human sacrifice. Wretch! I will first gratify the great mother of beings with thy blood flowing from a headless trunk." ‡

"MA'D'H,] 'Thou worst of sinful wretches! "How couldst thou attempt to deprive the tiple world of its rarest gem, and the universe of its greatest excellence, to bereave the

॥ *Hariv.* मरुत्सुखयेत्सु-कृतं संवत्सरादिदं सप्तकं विनिर्दिष्टं चोक्तं ॥

ॐ नमो भगवते वासुदेवाय । श्रीकृष्णार्जुनसंवादे शूराध्याये ॥

५ *Vasanta tilaca.* कल्याणिपत्रुअपरिद्धहपुत्रअप्रभूकोशनिधानिनिषेधकेरुंयुमानः ।

ध्यात्वा त्रिधा लक्षणमावपरे त भूमाधो कश्यपौ हृदि तानि त्रयो वनेति ॥ १५३ ॥

† *Sandula pteridota* - शोण्डकवामिवाननशीर्षे वाक्मासाद्यभेदस्योरस्य कृपाणपात्रविषयादीहृन्मनः प्रवर्त्तते ।

आतंकादि कलङ्गतं करुणया विक्षोभितं विस्मया कोधेन ज्वलितं मुदा विहसितं चेत्तु यं वर्ततां ॥ २४ ॥

‡ *Scaevola viridita*, व्याघ्रावातमूलीकृपाकसमगण्यमिह हिंसाद्वयेपापप्राप्त्यपहस्येततत्र नृपः ।

सोहंप्राग्म बनेवभूजजननेमप्रीमिहृद्वाहनिषसखसकमधरन्यहविप्राग्मतनिःस्पन्दिना ॥ २५ ॥

people of light, to drive the kindred to desperation, to humble love, to make vision vain, and render the world a miserable waste?"

'Ah wicked wretch! "Hast thou dared to lift a weapon against the tender form, which even shrunk from the blow of light blossoms thrown in merry mood by playful damitels. This arm shall light on thy head like the sudden club of YAMA."'

AGHÓR.] 'Strike, villain! Art thou not such?'

MA'L. to MA'D'H.] 'Be pacified, dear MA'DHAVA! The cruel man is desperate. Abstain from this needless hazard.'

CAPA'L. to AGHÓR.] 'Venerable sir, be on your guard. Kill the wretch.'

MA'D'H. and AGHÓR. *addressing the women.* 'Take courage. The wretch is slain. Was it ever seen that the lion, whose sharp fangs are fitted to lacerate the front of the elephant, was foiled in fight with deer.'†

A noise behind the scenes. They listen.

'Ho! ye guards who seek MA'LATÍ. The venerable and unerring CA'MANDACI encourages BHÚRIVASU and instructs you to beset the temple of CARA'LA'. She says this strange and horrid deed can proceed from none but AGHÓRAGHANT'A; nor can ought else, but a sacrifice to CARA'LA', be conjectured.'

CAPA'L.] 'We are surrounded.'

AGHÓR.] 'Now is the moment which calls for courage.'

MA'L.] 'Oh father! Oh venerable mother!'

MA'D'H.] 'Tis resolved. 'I will place MA'LATÍ in safety with her friends, and slay this wicked forcerer.'

MA'D'H. *conducts MA'LATÍ to the other side and returns towards AGHÓRAGHANT'A.*

AGHÓR.] 'Ah wretch! "My sword shall even now cut thee to pieces, ringing against the

* *Sic'harini.* असारं संसारं परिमुच्यत त्वं विमुच्यते नित्योक्तं लोकं मरणं हरणं वाच्यवत्तनं ।

अर्च्यं कर्त्तव्यं जनमवमनिर्माणमकलं नमोऽर्च्यं कर्त्तव्यमविश्वतं नमोऽर्च्यं ॥ २६ ॥

† A very uncommon metre named *Avitā'ha* or *Narcut'aca*. वणविश्वीरुकीं पुरिवासरुकादिनी
खलिनशिरोवपुश्च नैरपिवाच्यनिवन् । वपुर्विवाचनं नमवत्तमुपविपनं नमोऽर्च्यं कावचनं वत्तमुपविपनं ॥ २७ ॥

‡ *Vasanta tilaca* शैवेति शैविहृदये हनयन् वपायः किंवा कदाचिद् विवेन किं नमोऽर्च्यं ।

सारं संसारं विवाचनं नमोऽर्च्यं वत्तमुपविपनं नमोऽर्च्यं कावचनं वत्तमुपविपनं ॥ २८ ॥

joints of thy bones, passing with instantaneous rapidity through thy tough muscles, and playing unresisted in flesh like moist clay

Thy fight. The scene closes.

SYNOPTICAL TABLES OF INDIAN PROSODY.

Feet used in Sanscrit Prosody.

TRISYLLABIC.

M. — — — MOLOSSUS.	M.	T. — — ◊ ANTIBACCHIUS f. PALIMBACCHIUS v. HYPOBACCHIUS.	H.
Y. ◊ — — BACCHIUS.	B.	J. ◊ — ◊ AMPHIBRACHYS f. SCORPUS. Sc.	
R. — ◊ — CRETICUS f. AMPHIMACER. C.	BH. ◊ ◊ DACTYLUS.		D.
S. ◊ ◊ — ANAPÆSTUS.	A.	N. ◊ ◊ ◊ TRIBRACHYS.	TR.

MONOSYLLABIC.

L. ◊	BREVIS.	BR.	G. —	LONGUS.	L.
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Feet used in Prācṛit Prosody.

1. c. One Mātrā or Calā. Sara: BREVIS ◊ BR.	Carn'a: SPONDEUS — — S.
2. c. Two Mātrās or Calās.	Payōd'hara: SCOLIUS ◊ — ◊ Sc.
Hāra: LONGUS — L.	Hasta: ANAPÆSTUS ◊ ◊ — A.
Supriya: PYRÆNICHIIUS f. PERIAMBUS, ◊ ◊ P.	Charana DACTYLUS — ◊ ◊ D.
3. c. Three Mātrās or Calās.	Vipra: PROCELEUSMATICUS ◊ ◊ ◊ ◊ PR.
Tāla: TROCHÆUS — ◊ T.	Indrāsana: 5. c. Five Mātrās or Calās.
Dwaja: IAMBUS ◊ — I.	CRETICUS C. BACCHIUS B. PÆON PÆ. &c.
Tān'dava: TRIBRACHYS ◊ ◊ ◊ TR.	Sarōja: 6. c. Six Mātrās or Calās.
Haya: 4. c. Four Mātrās or Calās.	MOLOSSUS M. &c.

* Su'harin'i कठोरस्थिर्बन्धिनिकररणकारमुखरःखरसायुद्धेक्ष्णविहितवेगमुपरमः ।

निरतङ्कः १२ द्वे विषयिणिपिच्छेदुविच सन्नसिर्गन्गाजं सपदि सवशस्तेविकिरमु ॥ २६ ॥

Metre of the V; regulated by the number of syllables. Seven classes subdivided into eight orders.

CLASSES.

	<i>Gāyatrī.</i>	<i>Ushnih.</i>	<i>Anush'ubh.</i>	<i>Vrihati.</i>	<i>Pancti.</i>	<i>Trish'ubh.</i>	<i>Jagati.</i>
ORDERS.							
A'rūhī,	24	28	32	36	40	44	48
Daivī,	1	2	3		5	6	7
A'surī,	15	14	13		11	10	9
Prājāpatyā,	8	12	16	20	24	28	32
Yajush,	6	7	8	9	10	11	12
Sāman,	12	14	16	18	20	22	24
Rīch,	18	21	24	27	30	33	36
Brāhmī,	36	42	48	54	60	66	72

Distribution of the Syllables in Triplets, Tetrastichs &c.

I. GA'YATRĪ.

1. Tripād,..... $8 \times 3 = 24$
2. Chatushpād,..... $6 \times 4 = 24$
3. Pādanivṛt,..... $7 \times 3 = 21$
4. Atipādanivṛt,..... $6 + 8 + 7 = 21$
5. Nāgī,..... $9 + 9 + 6 = 24$
6. Vārāhī,..... $6 + 9 + 9 = 24$
7. Bārdhmāna,..... $6 + 7 + 8 = 21$
8. Pratish'thā,..... $8 + 7 + 6 = 21$
9. Dwipādvirāj,..... $12 + 8 = 20$
10. Tripādvirāj,..... $11 \times 3 = 33$

II. USHNIH.

1. Tripād, ($12 + 8 \times 2$).
 1. Cacubh,..... $8 + 12 + 8 = 28$
 2. Pura Ushnih,..... $12 + 8 + 8 = 28$
 3. Paróshnih,..... $8 + 8 + 12 = 28$
2. Chatushpād,..... $7 \times 4 = 28$

III. ANUSHT'UBH.

1. Chatushpād,..... $8 \times 4 = 32$
2. Tripād, ($8 + 12 \times 2$). viz. $12 + 8 + 12$:
or $12 + 12 + 8$. or $8 + 12 + 12 = 32$:

IV. VRĪHATĪ.

1. Chatushpād,..... $9 \times 4 = 36$
2. $8 \times 2 + 10 \times 2 = 36$
3. $8 \times 3 + 12 = 36$
1. Pat'hyā, $8 + 8 + 12 + 8 = 36$

2. Nyancusārīnī (Secund'hogrvā or

- Uróvrihatī,) $8 + 12 + 8 + 8 = 36$
3. Uparishtádovrihatī, $8 \times 3 + 12 = 36$
4. Purastádovrihatī, .. $12 + 8 \times 3 = 36$
4. Mahavrihatī, (Satóvrihatī,) $12 \times 3 = 36$

V. PANCTI.

1. Chatushpād, ($12 \times 2 + 8 \times 2$).

1. Satah-p. $12 + 8 + 12 + 8 = 40$
or..... $8 + 12 + 8 + 12 = 40$
2. Astára-p..... $8 + 8 + 12 + 12 = 40$
3. Prastára-p... $12 + 12 + 8 + 8 = 40$
4. Vistára-p..... $8 + 12 + 12 + 8 = 40$
5. Sanstára-p. $12 + 8 + 8 + 12 = 40$
2. 1. Acsharapancti,..... $5 \times 4 = 20$
2. Alpashapancti,..... $5 \times 2 = 10$
3. Padapancti,..... $5 \times 5 = 25$
4. $4 + 6 + 5 \times 3 = 25$
3. Pat'hyā,..... $8 \times 5 = 40$
4. Jagatī,..... $8 \times 6 = 48$

VI. TRĪSHTUBH.

1. Jyōtishmatī,..... $11 + 8 \times 4 = 43$
2. Jagatī,..... $12 + 8 \times 4 = 44$
Purastādjyōtishmatī, .. $11 (12) + 8 \times 3$
Mad'hyā, .. $8 + 8 + 11 (12) + 8 + 8$
Uparishtād, .. $8 + 8 + 8 + 8 + 11 (12)$

Deficient and exuberant Metre.

1. *Sal* $7 + a \times 3$ ex. (Gāyatrī) $5 + 6 \times 3 = 23$.
2. *Cecumati*, $= 6 + a \times 3$
3. *Pipilic*, *mud'hyā*, $=$ (Tripād) $=$ many + few + many ex. $8 + 4 + 8$.
4. *Yavumad'hyā*, $=$ (Tripād) $=$ few + many + few ex. $8 + 10 + 8$.
5. *Nivrit*, $= a - 1$ ex. (Gāyatrī) $24 - 1 = 23$.
6. *Bhurij*, $= a + 1$ ex. (Gāyatrī) $24 + 1 = 25$.
7. *Virāj*, $= a - 2$ ex. (Gāyatrī) $8 + 8 + 6 = 22$.
8. *Swarāj*, $= a + 2$ ex. (Gāyatrī) $8 + 8 + 10 = 26$.*

I. *Gan'avṛtta of Sanskrit Prosody, and Mātra'vṛtta of Prācṛit Prosody;*
regulated by quantity.

1. *A'ryā* or *Chā'hā* Pr. *Gāhā*. $30 + 27 = 57$ c.

Odd verse: 30 c. $= 7\frac{1}{2}$ ft. (6th = Sc. or Pr).

Even verse: 27 c. $= 7\frac{1}{2}$ ft. (6th = Br).

Each verse ends in L.

Pause in 1st verse before 7th ft. if Pr. But if 6th ft. be Pr. then pause after 1st syllable.

Pause in 2d verse before 5th ft. if Pr.

16 Species: *Pa'hya*: Pause after 3d ft. $(3 + 4\frac{1}{2} = 7\frac{1}{2}$ ft. & $12 + 18 + 12 + 15 = 57$ c).

Vipulā: Pause placed otherwise. Hence *A'di-vipulā*, *Antyadvipulā*, and *Ubhaya-vipulā*, with 1st verse, 2d, or both, irregularly divided by the pause. *Chapalā* 1st f. S. or A. 2d Sc. 3d S. 4th Sc., 5th S. or D. 6th Sc. or Pr. (in the short verse, Br). 7th S. D. A. or Pr. Hence *Muc'hachapalā*, *Jag'hany*

chapalā and *Māhachapalā*, with 1st, 2d or both verses so constructed. Therefore *A'ryā* + 3 *Chapalās* \times *Pa'hya* + 3 *Vipulās* = 16 species.

Variations: *A'ryā*, 1st verse 10800. 2d verse 6400. *Chapalā* 1st verse 32, 2d verse 16.

In *Prācṛit* prosody, 27 species: from 27 L. + 3 Br. = 30 syll. to 1 L. and 55 Br. = 56 syll.

Specifick varieties. *Culind* containing 1 Sc.

Culā'hā, 2 Sc. *Vāsyā*, many Sc. *Ran'dā*, no Sc. *Gurvin'*, Sc. 1st, 3d, 5th or 7th ft. But this is against rule: which excludes amphibrachyt from the odd feet.

2. *Udhā'rī* or *Vigā'hā* Pr. *Vigā'hā*. $27 + 30 = 57$ c. viz. $12 + 15 + 12 + 18$.

3. *Uṇaṇṇī* Pr. *Gā'hā*. $27 + 27 = 54$ c. viz.

* If there be room to doubt whether the metre be reduced from the next above, or raised from the next below, the first verse determines the question; for it is referred to the class to which the first verse or *pāda* belongs. If this do not suffice, the metre is referred to that class, which is sacred to the deity, to whom the prayer is addressed. Should this also be insufficient, other rules of selection have been provided. Sometimes the metre is eked out by substituting *īya* or *ūva* for correspondent vowels. This in particular, appears to be practised in the *Sāmavāda*.

12+15+12+15

4. Giti or Udgāṭha' Pr. Uggāṭha'. 30+30=60 c. viz. 12+18+12+18.

5. A'RYA'GITI or C'handa'haca Pr. Scandha. 32+32=64 c.

8 ft. complete. (3+5=8f. and 12+20+12+20=64 c).

Species 16 (Paṭ'hya' &c), variations of each verse 10800.

In Pracrit prosody, 28 species from 28 L. & 8 Br. to 1 L. and 69 Br.

6. Chandica', Sangiti or Gā'hini Pr. Gā'hini 30+32=62 c. viz. 12+18+12+20.

7. Sugiti, or Parigiti Pr. Sūhini 32+30=62 c. viz. 12+20+12+18.

Also 6. Sangiti, 32 + 29 = 61 c.

A'ryā (7½ ft.) + L. in both verses.

7. Sugiti, 32 + 27 = 59 c.

L. in first verse only.

8. Pragiti, 30 + 29 = 59 c.

+ L. in second verse only.

9. Anugiti, 27 + 33 = 60 c.
Reverse of Sugiti.

10. Manjugiti, 29 + 30 = 59 c.
Reverse of Pragiti.

11. Vigiti, 29 + 29 = 58 c.
Upagiti + L. in both verses.

12. Chārugiti, 29 + 32 = 61 c.
Reverse of Sangiti.

13. Vallari, 32 + 30 = 62 c.
A'ryāgiti + L. in last verse.

14. Latā, 30 + 32 = 62 c.
— L. in first verse.

15. Pramādā, 29 + 27 = 56 c.
Upagiti + L. in first verse.

16. Chandricā, 27 + 29 = 56 c.
+ L. in last verse.

All these kinds admit 16 species as above:
viz. Paṭ'hya' &c.

II. Mātrā vṛtta or Mātrā ch'handas, of Sanscrit Prosody.

1. VAITĀLIYA, 56 to 68 c.

1. Vaitāliya, 14 + 16 + 14 + 16 = 60 c.

End in C. + L.

Short syllables by pairs (even verses not to begin with 2 Tr.)

2. Apātālica, End in D. & S.

3. Auparhhandasica, 16 + 18 + 16 + 18 = 68 c. End in C. & B.

Each kind admits 8 varieties of the short verse & 13 of the long: from 3 long syll. to 6 short beginning the one, & from ¼ long syll. to 1 long & 3 short in the other.

Also the following species under each kind.

1. Dacshinānticā, begin with I.

Comprising 2 varieties of the odd verses.

I. I. (or Tr.); and 4 of the even verses. I. B (or Pz. 2d or 4th or 5th Br.)

2. Uddhaya vṛtta, odd verses begin with I.

3. Prāchya vṛtta, even verses C. or Pz. 4.

4. Pravṛttā, the 2 preceding combined.

5. Aparānticā, 16 × 4 = 64 c. (Prāch.)

6. Chāruharinī, 14 × 4 = 56 c. (Uddh.)

2. MĀ'TRĀ SAMAGA, 16 (4 × 4) × 4 = 64 c.

End S. or A. Begin S. A. D. or Pz.

1. Mātrā samaga, 2d ft. S. A. or D. 3d ft. A.

2. Vis'lōca, 2d Sc. or Pz. 3d S. or D.

3. Vānavāricā, 2d S. A. or D. 3d Sc. or Pz.

4. Chitrā, 2d Sc. or Pz. 3d A. Sc. or Pz.

5. Upachitrā, 2d S. A. or D. 3d S. or D.

6. Pādāculaca, the above intermixed.

The 1st species ad. to 24 varieties; the 2d, 3d, &c. to 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 each. The variations in the last species are very numerous.

3. GITYA'RYA' or *Achalā'hriti*, 16 L. 4

All short syllables.

4. DWIC'HAN'DACA; or Couplet.

1. *Sic'hā* or *Chūdā*, 32 Br. + 16 L.

2 species: *Jyōtish* 1st verse 32 Br. 2d 16 L.

Saun'yā or *Arangācrīdā* 1st verse 16 L.

2d 32 Br.

Also 1 *Sic'hā* 30 + 30 = 60 c.

1st Verse 28 Br. + L. 2d 30 Br. L. +

2. *Chanjā* 32 + 30 = 62 c.

1st 30 Br. + L. 2d 28 Br. + L.

3. *Chūlicā* or *Atirochirā* 29 + 29 = 58 c.

27 Br. + L.

Also 3 *Chūlicā* 29 + 31 = 60 c.

1st Verse 27 Br. + L. 2d 29 Br. + L.

III. *Mātrā vṛtta* of *Prācīṭ* prosody continued from Table I.

8. *Dōhā* S. *Dwipāt'ha*, 13 + 11 + 13 +

11 = 48 c.

3 ft. viz. odd verse 6 + 4 + 3. even verse 6 + 4 + 1.

23 species from 23 L. + 2 Br. to 48 Br.

9. *Uccach'hā* Pr. *Uccach'hā*, 11 x 6 = 66 c.

6 verses, 3 ft. each, 4 + 4 + 3.

8 species from 66 Br. to 28 L. + 10 Br.

10. *Rōlā* or *Lōlā*, 24 x 4 = 96 c.

Pause 11 + 13. Usually end in L.

12 species from 12 L. to 24 Br.

11. *Gandhā* Pr. *Gandhāna*, 17 + 18 + 17 + 18 = 70 Syll.

12. *Chatuspadā* or *Chatuspadicā* Pr. *Chāupaia* *Chāupāā*, 30 x 4 x 4 = 480 c. 16 verses: 7½ ft. 4 x 7 + L.

13. *Ghattā* & *Ghattānanda*, 31 x 2 = 62 c. 10 + 8 + 13 = 31 x 7 + 3 Br. or 11 + 7 + 13 = 6 + 3 x 3 + 5 + 4 + 3 + 2 + 2 Br.

14. *Shat'padi* or *Shat'padicā* Pr. *Ch'happāi*, 96 + 56 = 152 c.

Cāvyā 24 (11 + 13 = 6 + 4 x 4 + 2 Br.) + 4 = 96. *Ullalā* 28 (15 + 13) x 2 = 56.

Varieties of the *Tetrastich* 45 from 96 Br. to 44 L. + 8 Br. Varieties of the whole stanza

71 from 70 L. + 12 Br. to 152 Br.

15. *Prajat'ica* Pr. *Pajjalā*, 16 x 4 = 64 c.

4 ft. End in Sc.

16. *Atiliha* At'hillā Pr. *Atillā* 16 x 4 = 64 c.

No Sc. End in P.

17. *Pādāculaca* Pr. *Culapāā*, 16 x 4 = 64 c.

6 + 4 x 2 + 2 L.

18. *Raddā*, stanza of nine = 116 c.

viz. 1st = 15 c. = 4 ft. viz. 3 + 4 + 4 + 4.

End in Sc. or Pr.

2d = 12 c. = 4 ft. End in Pr.

3d = 15 c. End in D.

4th = 11 c. = 3 ft. End in Tr.

5th = 15 c. End in D.

6th to 9th = *Dōhā* as before.

5 species.

19. *Padmāvati* Pr. *Pāumā*, 32 x 4 = 128 c.

8 ft. no Sc.

20. *Cundalicā* Pr. *Cundālā*, stanza of eight = 142 c.

Dōhā + *Rōlā* or *Cāvyā*.

21. *Gagan'ānganā*, 25 x 4 = 100 c.

20 syll. viz. 5 L. & 15 Br. End in I.

22. *Dwipadī* or *Dwipadā*, 28 x 2 = 56 c.

6½ ft. viz. 6 + 4 + 5 + L.

PRAČAĪT PŌTRAV.

23. O'hanjā, 9 = 82 c.
 10 ft. viz. 9 Pr. + C.
 24. Sic'hā, 28 × 2 = 56 c.
 7 ft. viz. 6 Pr. + Sc. See Sanscrit metre.
 25. Mālā, 45 × 2 = 90 c.
 11 ft. viz. 4 × 9 + c. + S.
 Also 25. Mālā 45 + 27 = 72 c.
 Ist verse, as above, 2d verse A'ryā.
 26. Chudicāla Pr. Chulialā, 29 × 2 = 58 c.
 Half the D6hā + S.
 27. Saurāshtra Pr. Sōrut'hā, 11 + 13 + 11
 + 13 = 48 c.
 Reverse of the D6hā.
 28. Hācali, 14 × 4 = 56 c.
 3½ ft. viz. 4 × 3 + L. (syll. 11 or 10.) ft. D.
 Pr. or A. sometimes S. Not end in P. S.
 29. Mad'hubhāva, 8 × 4 = 32 c.
 2 ft. End in Sc.
 30. Abhīra, 11 × 4 = 44 c.
 7 + Sc. or D. + I + Sc. or Sc. + Tr. + Sc.
 31. Dan'dacala, 32 × 4 = 128 c.
 4 × 4 + 6 + 2 + 8, or 10 + 8 + 12. End in L.
 32. Dipaca, 10 × 4 = 40 c.
 4 + 5 + Br. usually end in Sc.
 33. Sinha'valōca Pr. Sinhālō 16 × 4 =
 64 c.
 4 ft. A. or Pr. but end in A.
 34. Plavangama Pr. Parangamā, 21 ×
 4 = 84 c.
 6 × 3 + 1. Begin with L.
 35. Lila'vatī, 24 or less × 4 = 96 or less.
 6 ft. or less: not end in A.
 36. Harigita', 28 × 4 = 112 c.
 5 + 6 + 5 × 3 + L. Should begin with Pr.
 and end in S.
 37. Tribhāngī, 32 × 4 = 128 c.

- 8 ft. No Sc. End in P.
 38. Dūrmilā, 10 + 8 + 14. ft. 8. 4 = 128 c.
 39. Hīra or Hīraca, 25 × 4 = 100 c.
 4 ft. viz. 6 × 3 + 5. 4. 6. Br. or 1 L. with
 4 Br. End in L.
 40. Jalad'hara or Jakaharāna', 32 × 4 =
 128 c.
 Pauses 10 + 8 + 6 + 8. ft. 8. Generally
 Pr. End in A.
 41. Madanagrīha or Madanahara', 40 × 4
 = 160 c.
 10 + 8 + 14 + 8 = 40.
 42. Mūha'ra'sht'ra Pr. Mūrahatt'a, 29 × 4
 = 116 c.
 10 + 8 + 11 or 6 + 4 × 5 + L. + Br.
 Also the following kinds:
 43. Ruchira', 30 × 4 = 120 c.
 7½ ft. end in L.
 44. Calica', 14 × 4 = 56 c.
 Pauses 8 + 6.
 45. Vasan'a, 20 × 4 = 80 c.
 4 ft. End in C. Pause before the last.
 46. Chaurōla, 16 + 14 + 16 + 14 = 60 c.
 ft. A. or Pr.
 47. Jhallana', 37 × 4 = 148 c.
 7½ ft. 5 × 7 + L. Pauses 10 + 10 + 10 + 7.
 48. Asha'd'ha, 12 + 7 + 12 + 7 = 38 c.
 49. Mā'lavī, 16 + 12 + 16 + 12 = 56 c.
 Long verse 4 ft. short verse end in L.
 50. Matta', 20 × 4 = 80 c.
 5 ft. no Sc.
 51. Rasamala, 24 × 4 = 96 c.
 6 ft.
 52. Avalambaca, 13 × 4 = 52 c.
 3 ft. 4 × 3 + 5. End in L.

IV. Metre regulated by number of Syllables.

VACTRA.

2 ft. between 2 syll. The species vary in the 2d ft. 3d place.

1. Simple Vactra

L. or Br. + M. &c. (except Tr. & A. and, in the even verse, C) + B + L. or Br. Therefore 1st 4th & 8th syll. either long or short. 5th short. 6th & 7th long. Either 2d or 3d long.

Variations of the 1st verse 24, of the 2d 20.

2. Pat'hyā.

1st verse as above; 2d with Sc. for 2d ft. Hence 7th syll. short.

3. Viparīta pat'hyā.

The preceding transposed.

4. Chapalā.

1st verse with Tr. for 2d ft. Therefore 6th & 7th syll. short.

5. Vipulā.

2d verse (some say 1st, others all) with 7th syll. short. Therefore 2d ft. D, Sc. H. or Tr.

5 or 7 species: Bha-vipulā, 1st verse (some say either) with D. for 2d ft. Ra-vipulā, with C. for 2d ft. Na-vipulā, 2d ft. Tr. Ta-vipulā, 2d ft. H. Ma-vipulā, 2d ft. M Ya-vipulā, 2d ft. B. Ja-vipulā, 2d ft. Sc.

No instance occurs with an anapaest for the 2d ft. or 3d place.

V. Acshara ch'handas or Varn'a vṛtta. Metre regulated by number and quantity.

Regular or uniform metre; the stanza being composed of equal and similar verses.

From one to five syllables in the verse, or from four to twenty in the stanza.

I. UCTA' or UCT'HA. $1 \times 4 = 4$.

1. Sri, g. = L. 2. Mahī, l. = Br.

II. ATYUCTA'. $2 \times 4 = 8$.

1. Strī, or Cāma, 2 g. = S. 2. Rati, or Mahī, l. g. = r. 3. Sāru, g. l. = T. 4. Madhu, Pr. Māhu, 2 l. = P.

III. MADHYA'. $3 \times 4 = 12$.

1. Nārtī, or Tālī, m. = M. 2. Sasī, Pr. Sasī, y. = B. 3. Priyā, Pr. Piā; or Mrīgī, r. = C. 4. Ramanī, or Raman'a, s. = A. 5. Panchāln, or Pānchāla, t. = H. 6. Mrī-gendra, Pr. Mainda, j. = Sc. 7. Mandara, bh. = D. 8. Camalī, or Camala, n. = Tr.

IV. PRATISHT'HA' $4 \times 4 = 16$.

1. Canyā, or Tīrnā, Pr. Tinnā, m. g. = 2 S. 2. Ghāri, or Hāricā, r. l. = 2 T. 3. Nagālicā, Lagālicā, Nagānī, or Nagānicā, Pr. Nagāniā, or Nagānī, j. g. = 2 I. 4. Sati, n. g. = P. I.

V. SUPRATISHT'HA' $5 \times 4 = 20$.

1. Pancti, Acsharapancti, or Hansa, bh. 2 g. = D. S. 2. Sammōhā, m. 2 g. = M. 3. Hārītabandha, or Hārī, 2 g. l. 2 g. or t. 2 g. = S. B. 4. Priyā, 2 l. r. = A. I. 5. Yamaca, Pr. Jamaca, n. 2 l. = P. Tr.

From six to twenty-six syllables in the Verse.

I. GA'YATRI. $6 \times 4 = 24$.

1. Tanupad'hya, $ty = SP S$. 2. Vidyuléc'há, or Sécá, $Pr. Sécá, 2m = 3S$. 3. Sasivadáná, or Champáná, $ny = 2PS$. 4. Vasumati, $ss = SP I$. 5. Vanitá, or Tilaca, $Pr. Dilla, 2s = 2A$. 6. Yódha, or Dwiyódhí, $Pr. Kjóha, 2r = TSI$. 7. Chaturáná, $Pr. Cháuraná, ny = 2PS$. 8. Mant'hána, or Cámávatára, (half of the *Sáraga*), $2t = SIT$. 9. Sanc'hanári or Sómaraí, (half of the *Bhajangaprayáta*), $2y = ITS$. 10. Málati, Sumálati, Vasanta, or Cámínicánta, $2j = IPT$. 11. Damánaca, $2n = 3P$.

II. USHNIH $7 \times 4 = 28$.

1. Cumáralatitá, $(2+5)js = I + Tr. S$. 2. Madaléc'há, $msg = 3DS$. 3. Hansamálá, $rg = ATS$. 4. Mad'humati, $2sg = 2PA$. 5. Sumánicá, $rgl = 2TC$. 6. Suváca, $njl = 2PD$. 7. Carahanchá, $zsl = 2PSc$. 8. Sírará, $Pr. Sísá, 2mg = 2SM$.

III. ANUSHTUBH $8 \times 4 = 32$.

1. Chitrapadá, $2bh. 2g = 2DS$. 2. Vidyunmálá, $Pr. Bijjámálá, (4+4) 2m 2g = 2S + 2S$. 3. Mánavaca, or Mánavacáridá, $(4+4) bh, tlg = TI + TI$. 4. Hansaruta, $mn 2g = SDB$. 5. Pramánicá, Nagaswarupini, or Matallicá, $jrlg = 4I$. 6. Samánicá, or Mallicá, $rjgl = 4T$. 7. Vitána, $jt 2g = 2ITS$. 8. Tungá, $2n 2g = 3PS$. 9. Camala, $2lnr = 2P2I$. 10. Hansapadi, $2gms = 2STI$. 11. Mátagi, $2lm = STIS$. 12. Rambhá, $nlgm = 2P2S$.

IV. VRÍHATÍ $12 \times 4 = 48$.

1. Halamuc'hí, $(3+6) 2ss = C + 2PI$. 2. Bhujagásiusríta, $(7+2) 2nm = 2PA + S$. 3. Bhadríci, $nr = 2TAI$. 4. Mahálocshmi, $3r = TSBI$. 5. Sáragi, or Sa'ragi, $ny = 2PSA$. 6. Pávitra, $Pr. Páyitá, mbh. = 2SPA$. 7. Camalá, $2ns = 3PA$. 8. Bimbá, $ssy = PTr. TS$. 9. Tómará, $2j = A IPT$. 10. Rupamálí, $r m = 3SM$. 11. Manimad'hya or Maniband'ha, $bh. rs = D2TI$. 12. Bhujangasangatá, $sjr = ASI$.

V. PANCTI $10 \times 4 = 40$.

1. Sudd'haviraj, $msjg = ST3I$. 2. Panava, $(5+5), mnyg = SD + AS$. or $mnjg = SD + AI$. 3. Mayúrasarin'i, $r jr = 4TS$. 4. Mattá, $(4+6), mbh. sg = 2S + 2PS$. 5. Upast'hita, $(2+8) t 2 jg = S + 2AI$. 6. Ruemavati or Champacamalá $(5+5), bh. msgDS + DS$. 7. Manóramá, $nrjg = P4I$. 8. Sanyucta, $P. Sanjuktá, 2jg = P2T2I$. 9. Sáravati, $3bh. g = 2DTI$. 10. Sushamá, $tybh. g = SASA$. 11. Amrítamati, or Amrítagati, $njn = PAPA$. 12. Hansí, $(4+6), mbh. mg = 2STr. S$. 13. Chárumuc'hí, $nybh. g = PASA$. 14. Chandramuc'hí, $2nbh. g = SP2A$.

VI. TRÍSHTUBH $11 \times 4 = 44$.

1. Indravajrá, $2tj 2g = SIDTS$. 2. Upéndravajrá, $jtj 2g = 2IDTS$. 3. Upajáti, or Ac'hyánaci, (14 species.) *The two foregoing intermixed.* 4. Dód'haca, Band'ha or Nilaswarúpa, $2bh. 2g = 3DS$.

5. Sālinī, (4 + 4), $m s j 2 g = 2 S + C T$
 6. Vātormī, (4 + 7), $m b h. t 2 g = 2 S + A T S$. 7. Nandīravilasita, (4 + 7), $m b h. n l g = 2 S + 2 P A$. 8. Rāchōd' dhatā, $r n r l g = 2 T A 2 I$. 9. Swāgatā, $r n b h. 2 g = 2 T A P S$. 10. Vṛintā or Vritā, (4 + 7), $2 n s 2 g = 3 P A S$. 11. Syenīcā or Sṛēnīcā, $r j r l g = 4 T C$. 12. Sumuc'hī, (5 + 6), $n 2 j l g = P A + 2 A$. 13. Bhadrīcā, $2 n r l g = 2 P A 2 I$. 14. Maucticamālā, Śrī, Anucūlā or Cudmaladanti, (5 + 6), $b h. t n 2 g = D S + 2 P S$. 15. Upast'hītā, $j s t 2 g = I T r. S T S$. 16. Upachitra or Viśēshicā, $2 s l g = 3 A I$. 17. Cupurushajagītā, $2 n r 2 g = 2 P A I S$. 18. Anavasitā, $n y b h. 2 g = 2 P S D S$. 19. Mōtanaca, $t 2 j l g = S 3 A$. 20. Mālatīmālā, $3 m 2 g = 4 S M$. 21. Damanaca, $r n l g = 4 P A$. 22. Madānd'hā, $m s j 2 g = S 2 T S$.

VII. JAGATĪ $12 \times 4 = 48$,

1. Vans'ast'ha or Vans'ast'havila, $j t j r = 2 I T 3 I$. 2. Indrāvansā, $2 t j r = S I T 3 I$. 3. Upajāti, the two foregoing intermixed. 4. Tōtāca, $4 s = 4 A$. 5. Drutavilambitā, $n 2 b h. r = P I 2 A I$. 6. Śrīputa or Puta, (8 + 4), $2 n m y = 3 P S + T S$. 7. Jalōdd'hatagati, (6 + 6), $j s j s = I P I + I P I$. 8. Tata or Lalitā, $2 n m r = 3 P 2 S I$. 9. Cusumavichitrā, (6 + 6), $n y n y = 2 P S + 2 P S$. 10. Chanchalā'cshicā, Pramuditā'vāṇā, Mandācinī, Gaurī or Prabhā, (7 + 5), $2 n 2 r = 2 P A + B I$. 11. Bhujangaprayāta, $4 y = I T S I T S$. 12. Śragvinī or Lacshmīd'hara, $4 r = T S I T S T$. 13. Pramītā'sharā, $s j 2 s = A S c. 2 A$. 14. Cāntōtpādā or Jaladharamālā, (4 + 8), $m b h. s m = 2 S + 2 P 2 S$ or $b h. m$

$s m = D S D S$. 15. Nandī, $n s j 2 g = 2 S + C T$. 16. Navamālī, (8 + 4), $n j b h. y = 2 P 2 T + P S$. 17. Chandravarāna, (4 + 8), $r s s s = 2 T + P D A$. 18. Priyambodhā, $n b h. j r = P I P 3 I$. 19. Manīmālā, (8 + 6), $t y t y = S P S + S P S$. 20. Lalitā, $r n b h. j r = S I P 3 I$. 21. Ujjvalī, $2 n b h. r = 3 P T 2 I$. 22. Mālatī or Varāṇa, (5 + 7), $n 2 j r = P A + A 2 I$. 23. Tāmarasa or Lalitapada, $n 2 j y = 2 P 2 D S$. 24. Lalitā, (5 + 7) $b h. m 2 s = D S + D T I$ or $b h. t n s = D S + 2 P A$. 25. Drutapada, $n b h. n y = P I 3 P S$. 26. Vidyād'hara, (4 + 8), $4 m = 2 S + 4 S$. 27. Saranga, $4 t = S I T S I T$. 28. Maucticadāma, $4 j = I P T I P T$. 29. Mōdaca, $4 b h. = 4 D$. 30. Taralanayani, $4 n = 6 P$.

VIII. ATIJAGATĪ, $13 \times 4 = 52$.

1. Praharashikā, (3 + 10) $m n j r g = M + 2 P 2 T S$. 2. Ruchirā, or Atiruchirā, (4 + 9) $j b h. s j g = 2 I + 2 P T C$. 3. Mattamayūra, or Māyā, (4 + 9) $m t y s g = 2 S + T I D S$. 4. Gaurī, $2 n 2 r g = 3 P T S B$. 5. Manjubhāshinī, Prabhōd'hītā, Sunandī, or Canacaprabhā, $s j s j g = A I + P S I$. 6. Chandricā, Cshamā, Utpalī, or Cūtilagatī, (7 + 6) $2 n 2 t g = P A + T S I$. 7. Calahansa, Chitravatī, or Sinhanāda, $s j 2 s g = P 2 T P D S$. 8. Chancharicāvalī, $y m 2 r g = I 2 S C T S$. 9. Chandrac'hā, (6 + 7) $n s r y g = 2 P I + 2 T M$. 10. Vidyut, (6 + 7) $n s 2 t g = 2 P I + S I C$. 11. Mṛigēndramuc'hā, $n 2 j r g = P A P 2 T S$. 12. Tāraca, $4 s g = 3 A P S$. 13. Calācanda, or Canda, $4 y l = B I T S I T$. 14. Pañcājvalī, or Pañcāvalī, $b h. n 2 j l = D 2 P 2 D$. 15. Chan'dī, $2 n 2 s g$

= 4 PDS. 16. Pabdhāvatī, (4 + 9) t bh. s j g = SI + 2 PTO.

IX. SACCARĪ, 14 × 4 = 56.

1. Asambād'hā, (5 + 9) m t n s 2 g = M S + 2 P A S. 2. Aparājītā, (7 + 7) 2 n r s l g = 2 P A + 1 A l o r s n r s l g = P T A I A I. 3. Prāharānācalitā, or Calicā, (7 + 7) 2 n bh. n l g = 2 P A + 2 P A. 4. Vasantatīlaca, Sindhonnatā, Udd'hārshinī, Mad'hūmād'havi, or Śōbhāvatī, t bh. 2 j 2 g = SIPIPTS. 5. Lōla, or Alōlā, (7 + 7) m s m bh. 2 g = S D S + S D S. 6. Induvadānā, or Varasundarī, bh. j s n 2 g = T P T P T P S. 7. Nadī, (7 + 7) 2 n t j 2 g = 2 P A + D T S. 8. Lacahmī, m s t bh. 2 g = S D S T D S. 9. Supavitrā, (8 + 6) 4 n 2 g = 4 P + 2 P S. 10. Madhyacahmā, (4 + 10) or Cut'illā, (4 + 6 + 4) m bh. n y 2 g = 2 S + 3 P + 2 S. 11. Pramadā, n j bh. j l g = 2 P 2 T P T I. 12. Manjarī, (5 + 9) s j s y l g = P 2 T P T S I. 13. Cumārī, (8 + 6) n j bh. j 2 g = 2 P 2 T P T S. 14. Sucēsara, n r n r l g = P 2 I P S I. 15. Vāsantī, m t n m 2 g = 2 S D A 2 S. 16. Nāndīmuc'hī, (7 + 7) 2 n 2 t 2 g = 3 P S I T S. 17. Chacra, or Chacrapāta, bh. 3 n l g = T 5 P I. 18. Lilōpavatī, (4 + 10) 4 m 2 g = 2 S + 5 S. 19. Nat'agatī, 4 n 2 g = 6 P + S. 20. Cōpavatī, bh. m s t l g = D S D S T I.

X. ATISACCARĪ, 15 × 4 = 60.

1. Chandrávartā, (7 + 8) 4 n s = 2 P T r + P T r. A. 2. Mālā, or Śraj, (6 + 9) 4 n s = 2 T r. + 2 T r. A. 3. Manigun'anicara, (8 + 7) 4 n s = 4 P + 2 P A. 4. Mālinī, or Nāndīmuc'hī, (8 + 7) 2 n m 2 y = 3 P S + C T S. 5. Chandralēc'hā, (7 + 8) m r m 2 y = 2 S B + S I T S. 6. Cāmacrīdā,

Lōlā'hēla, or Śārangicā and Śārangaca, 5 m = 3 S M. 7. Prābhadraca, or Śūbhadraca and Sugēsara, (7 + 8) 2 j bh. j r m 2 P C + P S I. 8. Elā, (5 + 10) s j s y = A I + 4 I T. 9. Ūpamālinī, (8 + 7) 2 n t bh. r = 3 P T + S A I. 10. Vipinatīlaca, m s n 2 r = 2 P I T r. T S I. 11. Chitrā, 3 m 2 y = 3 S M I T S. 12. Turāca, or Chāntaca, (8 + 7) R. = 2 S c. = 6 T C. 13. Bhramarāvalī, 5 s = 5 A. 14. Mannhanna, s 2 j bh. r = A I P 2 T 2 I. 15. Sarabha, or Śāricā, 4 n + s = 6 P A. 16. Nisipāla, bh. j s n r = D I P I P 2 I. 17. Ūtsara, r n 2 bh. r = 2 T 3 A I. 18. Hama, (8 + 7) n 2 j + y = 2 P D S T S.

XI. ASHTI, 16 × 4 = 64.

1. Rāhabhagjavilasitā, or Gajaturangavilasitā, (7 + 9) bh. r s n g = D 2 T + 2 P A. 2. Vāu'ini, n j bh. j r g = 2 P 2 T P 2 T S. 3. Chitrā, Chātrasanga, Atisundarā or Chanchalā, (double Samānicā) r j r j r l = 8 T. 4. Panchachāmārā, Nārācha or Nārācha, (double Pramānicā), j s j h j g = 8 T. 5. Dhīrālalitā, bh. r n r n g = D 2 T P 2 T A. 6. Ch'agatī, Nīla, Lālā or Aswagatī, 5 bh. g = 4 D T I. 7. Chacitā, (8 + 8) bh. m t n g = D A S + S D A. 8. Madanālalitā, (4 + 6 + 6) m bh. n m n g = 2 S + 2 P I + 3 P I. 9. Pravaraṭalītā, m n s r g = 12 S 2 P I T S. 10. Gurūdarutā, n j bh. j l g = 2 P 2 T P T A. 11. Sālaric'hā, (16 or 5 + 6 + 5) bh. r n 2 bh. g = 2 S T S A or D T + T P T + I A. 12. Pārayavallī, bh. s y 2 n g = D 2 T S 2 P A. 13. Brahmacūpa, (double Vidyunnīlā), 5 m g = 5 S. 14. Achaladhritā, or Gītyāyā, 5 n t = 5 P. 15. Pinnānilambā, (4 + 5 + 5)

7) $m t y m s g = 2 S + D S + S D S$. 10. Yauvanamattā, (5 + 11) $b h$. $s m s g = D S + S D S$.

XII. ATYAGHṬI, 17 × 4 = 68.

1. Sictarinī, (6 + 11) $y m n s b h$. $l g = 1 S S + 2 P I D I$. 2. Prithvī, (8 + 9) $j s j s l g = 1 P 2 I + Tr. T S I$. 3. Vansapatriparvita, or Vansapatri, (10 + 7) $b h$. $r a b h$. $n l g = D 2 T A + 2 P A$. 4. Harinī, (6 + 4 + 7 or 4 + 6 + 7) $m s m r s l g = 2 P I + 2 S + 1 A I$. 5. Mandācrāntā, (4 + 6 + 7) $m b h$. $n 2 i 2 g = 2 S + 2 P I + C T S$. 6. Nardutaca, or Nardatāca (7 + 10), or Avitat'ha (17 +), $n j b h$. $2 j l g = Tr. 2 I + Tr. T I A$. 7. Cōcilaca, (7 + 6 + 4 + or 8 + 5 + 4 +) = $Tr. 2 I + P I P + T I$. 8. Hari, (6 + 4 + 7) $2 n m r s l g = 3 P + 2 S + 1 A I$. 9. Cāntā, or Crāntā, (4 + 6 + 7) $y b h$. $r s l g = 1 S + 2 P I + 1 A I$. 10. Chitraléc'hā, or Atis'ayanī, (10 + 7) $2 s j b h$. $j 2 g = 2 A 2 I + Tr. T S$. 11. Mālād'hara, or Vanamālād'hara, $n s j s y l g = 2 P 2 I Tr. T S I$. 12. Hārinī, (4 + 6 + 7) $m b h$. $n m y l g = 2 S + 2 P I + S B I$.

XIII. DHRĪTI, 18 × 4 = 72.

1. Cusumitalatā vēllitā, (5 + 6 + 7) $m s n 3 y = M S + 2 P I + C T S$. 2. Mahāmālicā, Nārācha, Latā, Vanamālā, (10 + 8 + 2 + 4) $r = 3 P T S + 1 T S I$. 3. Sud'hā, (6 + 6 + 6) $y m n s t s = 1 2 S + 2 P I + S P I$. 4. Hafin'apluta, (8 + 5 + 5) $m s 2 j b h$. $r = S T 2 I + A I + A I$. 5. Aswagati, 5 $b h$. $s = 5 D A$. 6. Chitraléc'hā, (4 + 7 + 7) $m 2 s 2 t m = S T + P Tr. S + 1 T M$. 7. Bhramarapada, $b h$. $r 3 n m = D 2 T 3 P A S$. 8. Sārdūlalalita, (12 + 6) $m s j s t s = S D 2 T A + S P I$. 9. Sārdūla,

(12 + 6) $m s j s t s = S D 2 T A + T 2 S$. 10. Cōsara, (4 + 7 + 7) $m b h$. $s y 2 r = 2 S + 2 P A + S I C$. 11. Naudana, (11 + 7) $n j b h$. $j 2 r = 2 P T D I + 2 I C$. 12. Chitrasālā, Chitraléc'hā, (4 + 7 + 7) $m b h$. $n 3 y = 2 S + 2 P A + C T S$. 13. Chala, (4 + 7 + 7) $m b h$. $n j b h$. $r = 2 S + 2 P A + 1 A I$. 14. Vivud'hapriya, (8 + 10 +) $r s 2 j b h$. $r = 2 T 2 I + P 2 T 2 I$. 15. Manjira, 2 $m b h$. $m s m = 3 S D S D 2 S$. 16. Crid'achandra, 6 $y = 1 T P I T P I T P$. 17. 'Charchari, $r s 2 j b h$. $r = T D I D 2 T 2 I$.

XIV. ATIDHRĪTI, 19 × 4 = 76.

1. Sārdūlavicridita, or Sārdūla, (12 + 7) $m s j s 2 t g = S D 2 T A + S I C$. 2. Még'havap'hurjūtā, or Vismitra, (6 + 6 + 7) $y m n s 2 r g = 1 2 S + 2 P I + C T S$. 3. Panchachāmara, 2 $m b h$. $s l g = Tr. P 7 I$. 4. Pushpadāma, (5 + 7 + 7) $m t n s 2 r g = M S + 2 P A + C T S$. 5. Bimbā, (5 + 7 + 7) $m t n s 2 t g = M S + 2 P A + H S I$. 6. Ch'hāyā, (6 + 6 + 7 or 12 + 7) $y m n s b h$. $t g = 1 2 S + 2 P I + D S I$. 7. Macarandicā, (6 + 6 + 7) $y m n s 2 j g = 1 2 S + 2 P I + 1 A I$. 8. Samudratatā, (8 + 4 + 7) $j s j s t b h$. $g = 1 P 2 I + P I + S I A$. 9. Surasā, (7 + 7 + 5) $m r b h$. $n y n g = M T S + 2 P A + D I$. 10. Manimanjarī, $y b h$. $n y 2 j g = 1 S 2 P A 2 T 2 I$. 11. Chandramālā, or Chandra, (10 + 9) $3 n j 2 n l = 5 P + D 3 P$. 12. Dhavalanica, or Dhavala, 6 $n g = 8 P A$. 13. Sambhu, (7 + 6 + 6) $s t y b h$. $2 m g = A S A S A S$.

XV. CRĪTI, 20 × 4 = 80.

1. Suvadana, (7 + 7 + 6) $m r b h$. $n y b h$.

3. Végavati (*Upachitra*—penult Br. in 1st verse). 1st $s i g = 2 A P S$. 2d $3 bh$. 2d $g = 3 D S$.

4. Bhadravirāj (species of *Upach'handasica*). 1st $t j r g = S P 2 T S$. 2d $m s j 2 g = 3 D 2 T S$.

5. Cétumati. 1st $s j s g = A I T S$. 2d $bh. r n 2 g = T. 2 I T S$.

6. Ac'hyanaci (*Upajāti viz. alternate Indravajra and Upéndravajra*; some say, one verse *Indravajra* three *Upéndravajra*). 1st (and 3d) $2 t j 2 g = S I D T S$. 2d (and 4th some say 3d) $j t j 2 g = 2 I D T S$.

7. Vīparitāc'hyanaci (the converse of the preceding). 1st $j t j 2 g = 2 I D T S$. 2d $2 t j 2 g = S I D T S$.

8. Harin'aplutā (*Drutavilambita*—one syllable) 1st $3 s l g = 3 A I$. 2d $n 2 bh. r = P I 2 A I$.

9. Aparavacitrā (species of *Vaidātya* or *Bhadricā + Mālati*). 1st $2 n r l g = 2 P A 2 I$. 2d $n 2 j r = P 2 A 2 I$.

10. Pusbpitāgrā (species of *Upach'handasica*). 1st $2 n r g = 3 P 2 T S$. 2d $n 2 j r g = 2 P D 2 T S$.

11. Yavamati. 1st $r j r j = 6 T$. 2d $j r j r g = 5 I B$.

12. Sic'hā. 1st $28 l g = 7 Tr. I$. 2d $30 l g = 7 Tr. P I$.

13. Chanjā. 1st $30 l g = 7 Tr. P$. 2d $28 l g = 7 Tr. I$.

14. Lalitā. 1st $r s l g = 2 T 2 I$. 2d $s n j g = A Tr. 2 I$.

15. Cauntudī (*Bhadricā + Chanchalācshicā*). 1st $2 n r l g = Tr. P 3 I$. 2d $2 n 2 r = 3 P T S I$.

16. Manjusaurabha (*Mālati + Manjubhāshini*). 1st $n 2 j r = 2 P T 3 I$. 2d $s j s j g = A I P 3 I$.

VII. Unequal Metre; the stanza being composed of dissimilar verses.

1. Udgatā, 1st verse $s j s l = A I Tr. T$. 2d $n s j g = Tr. A 2 I$. 3d $bh. n j l g = T Tr. 2 A$. 4th $s j s j g = A I P 3 I$. 2 varieties: viz. *Saurabhāca*, 3d verse $r n bh. g = T D 2 A$. *Lalitā*, 3d verse $2 n 2 s = 2 Tr. 2 A$.

2. Upast'hitaprachupita, 1st verse $m s j bh$. 2d $g = S D 2 T D S$. 2d $s n j r g = A 2 P 2 T S$. 3d $2 n s = 3 P A$. 4th $3 n j y = 5 P D S$. 2 varieties: viz. *Bard'hman'a*, 3d verse $2 n s = 3 P A$. *Sudd'havira'hishabha*,

3d verse $t j r = S A 2 I$.

3. PADACHATURVĒDHA, increasing in arithmetical progression from 8 to 20 syll. viz. 1st verse 8, 2d 12, 3d 16, 4th 20.

6 species: viz. *Apī'da*, End in S Rest Br. *Pratyāpī'da*, Begin with S or begin and end with S. *Manjari* or *Calicā*, 1st and 2d verses transposed $12 + 8 + 16 + 20$. *Lavaṅgī*, 1st and 3d transposed $16 + 12 + 8 + 20$. *Amṛtādhārī*, 1st and 4th transposed $20 + 12 + 16 + 8$.

VIII. Supplement, under the denomination of GA'T'HA'.

1. Stanzas comprising four unequal verses, constituting a metre not described by writers on prosody.

2. Stanzas comprising more or fewer verses

than four; viz. three, five, six &c.

3. Any metre not specified by PINGALA.

4. Metre not specified by any writer on prosody.

VII.

REMARKS upon the AUTHORITIES of MOSULMAN LAW.*

By J. H. HARRINGTON, Esq.

THE basis of Mohummudan law, religious, civil, and criminal, is the *Korán*; believed to be of divine origin, and to have been revealed by an angel to MOHUMMUD; who caused it to be written and published, from time to time, as occasion required, for the refutation of his opponents, or the instruction and guidance of his followers: though the hundred and fourteen *Sóowur*, or chapters, which compose the *Korán*, were not digested, in their present form, until after the death of MOHUMMUD; when they were collected by his immediate successor ABOO BUKR; and were afterwards, in the 30th year of the *Hijrah*, transcribed, collated, and promulgated, by order of the *Khuleefah* ÔTHMA'N.†

THE *Korán* being thus considered the written word of God, its texts, when clear and applicable, and not abrogated by other texts of subsequent revelation, are unquestionable and decisive. But, (as remarked by an eminent historian,‡) “In all religions the life of the founder supplies the silence of written revelation: the sayings of MA-

* These remarks are intended to form part of an Analysis of the Laws and Regulations, for the Civil Government of the *British* territories, under the Presidency of *Bengal*. This work is designed for the use of the students in the College of *Fort William*; and the second part, which relates to Criminal Justice, is introduced by a summary of the Mohummudan law of crimes and punishments, for the purpose of rendering more intelligible the amendments of it enacted by the Regulations of the Governor General in Council.

† V. SALE's Preliminary Discourse, Section III.

‡ In Chap. L. of the *Decline and fall of the Roman Empire*, relative to *Arabia*.

HOMEET were so many lessons of truth; his actions so many examples of virtue; and the public and private memorials were preserved by his wives and companions." In fact, the ordinances of the *Korán*, in civil affairs, are few and imperfect; and must have proved altogether inadequate to provide for the various objects of legislation, in a large and civilized community, without the aid of the *Sönnut*, or rule of conduct, deduced from the oral precepts, actions, and decisions, of the prophet. These were not committed to writing by MOHUMMUD; but were collected after his death, by tradition, from his companions, (the *Sahábah*), their contemporaries, (*Tábi'een*, literally, followers;) and successors (*Tubā-i-tábi'een*;) and the authentic traditions, which have been preserved in numerous compilations of *Ahádées*, (*dicta, factaque*; precepts and transactions;) *Sönnun*, (*instituta vitæ, exempla*; rules of practice and examples;) or *Riwayát*, (*relationes, reports*;) constitute a second authority of Mosulman law; conclusive (if the authenticity and application of the traditions be admitted) in all cases not expressly determined by the words of the *Korán*.*

* The collections of traditions held in the most general estimation, as genuine and authoritative, by the *Sünnies*, or orthodox traditionists, are the following; denominated *Sihah-i-sittah*; or the six authentic.

1. *Sahih-i-Bukháree*. Compiled by ABOO ABDÖLLAH, MOHUMMUD, of *Beihárá*. He was born A. H. 194, and died in the year 256; in the suburbs of *Samarkand*. His compilation is said to contain above seven thousand traditions; selected from 300,000.

2. *Sahih-i-Müslim*. By ABÖÖ'L HOSSEYN, MÖÖSLIM, of *Nýsháppur*. He died A. H. 261; and is also said to have compiled his work from 300,000 traditions. This and the preceding collection, when cited together, are called *Sahihýn*, or the two authentic.

3. *Sönnun-i-Im-i Müjah*. By MOHUMMUD-BEN-YÜZZED, BEN-I MA'JAN, of *Kuzveen*. (Erroneously named BEN MOHUMMUD, in D'HARASLOT. This *Sönnun* *Ebn Müjah*.) He died at *Kuzveen*, in *Irák*, A. H. 273.

4. *Sönnun-i Aböo Dáood*. By ABÖO DA'OOD, SOLY'MA'N, of *Sijistán*. He was born A. H. 202, and died at *Busrah*, in the year 275. His work is stated to consist of 4,800 traditions, selected from 500,000.

THE schisms and dissensions, however, which took place among the Mohammudans, after the demise of their legislator and founder, especially the contest for the succession to the *Khilāfut*, or pontificate, which gave rise to the *Shi'ah*, or sectaries of ALI, have occasioned various differences and disagreements, both in reading and interpreting the word of the *Korān*, and in admitting or rejecting the traditions, which compose the oral law. There appears to be an error, or verbal inaccuracy, in the observation of the learned, and in general accurate, translator of the *Korān*, that

5 *Jāmi-i Tirmizī*. By ABOO IRESA, MOHUMMUD, of Tirmiz, in *Tirmiz*. He is also surnamed ZUREER or DHUREER, from his blindness. His birth was A. H. 179, and his death in 279. His compilation is noticed by D'HERRILOT, under the title of *Qiyāmat al-Kutub* and is erroneously cited (apparently from D'HERRILOT,) in HAMILTON's Preliminary Discourse, page 36, as quoted in the *Hidāyah*; instead of the *Jāmi-i-Kubra*, or *fi-k*, or just prudence, by IMAM MOHUMMUD.

6. *Jāmi-i Nisā'i*; called also *Sūnun-i Nisā'i*. By ABOO-1 AMR-ŪS BAKKA'U AMRUD, of Nisā, a city of Eherāsan. He was born A. H. 223; and died in the year 303. This collection is selected from a former compilation, by the same author, called the *Sūnun-i-Kubrā*, and mentioned by D'HERRILOT, under the title of, *Sanan Al Kabir*.

The four works last mentioned, when cited collectively, have the designation of *Sūnun-i-arbā*, or the four collections of traditions. The short notices, which have been given, of their compilers, and of the authors of the *Sabeek's*, are taken chiefly from the *Mirāt-ül-dāim*, an esteemed general history composed by BUKHT-YA'R KHA'N, in the reign of AURUNGEZ. They are confirmed, with many other particulars, in the *Mishkāt*, a work of authority on the traditions admitted by the *Sūnees*; and used, as a class book, in Mosulman Colleges, with the *Sabeek i Bekhāree*, and *Sābeek-i Mūsliim*. The author, SHYKH WA'LEEDŪ'D-DEEN, ABOO ABDŪLLAH, MA'JID, who finished his undertaking (to verify and illustrate the traditions contained in a former compilation, called the *Musaberhū's Sūnus*, by HQSE'N BIN-I MUSŪD, -OOD, FURA'EE) A. H. 737, states that the *Muwatta* of MA'LIK BIN-ANB, (the founder of the second orthodox sect, who died A. H. 179) is, by some reckoned one of the six authentic collections, instead of the *Sūnun-i Ibn-i Mājah*. He adds that others are of opinion, the *Darūm*, compiled by ABOO MOHUMMUD ABDŪLLAH of *Sumurkund*, surnamed DA'RUMEE, who was born A. H. 181, and died in 255, should be classed as the sixth authentic. But he has himself given this place to the compilation of MOHUMMUD, the grandson of MA'JAH; and it is commonly placed third in the series, with reference to the supposed order of publication.

"the *Sonnites* receive the *Sonna*, or book of traditions of their prophet, as of canonical authority; whereas the *Shiites* reject it as apocryphal and unworthy of credit."* From this remark it might be inferred, that the *Shi'ah* reject the traditions altogether; whereas they admit many which are not deemed authentic, and are consequently rejected by the *Sunnies*. They have also their collections of *Ahādith*, and *Sunnah*, which they deem genuine and authoritative.† The difference between them, and the *Ahl-i-Sunnat*, or orthodox traditionists, who, as remarked by Mr. HAMILTON, appear to have assumed this title of distinction, "in opposition to the innovations of the sectaries," lies, as far as respects the traditions, in the different authorities, which are admitted by the two sects for the *Ahādith*, received by

* SALE'S Preliminary Discourse, Section VIII.

† MOULAVEE SIRA'J DŌ'DEEN ALI (one of the law officers of the courts of *Sadr Dewān* and *Nizāmat Adālat*, as well as of the Supreme Court, and employed by the late Sir W. JONES, to compile the *Shersh* part of a Digest of Mosulman Law, upon contracts and inheritance) rates the *Kutub-i urbā*, or four books of traditions, held authentic by the *Shi'ah*, to be the followings:

1. *Tabzesh*. 2. *Istibshar*. Both compiled by ABDO JAFUR MOHUMMUD, of Tees in *Khorāsān*.
3. *Jāma-i Kafes*. By MOHUMMUD BIN-I YAKOUB. Of Ry. in *Persian Irāk*.
4. *Mun la Yahzibh bil-futesh*. By MOHUMMUD BIN ALI, of Komm, also in *Irāk-i Ajam*.

The third of these collections, which quotes the compiler of the two first, is said to have been presented to IMA'M MAHDEE, who was born A. H. 255. The author of the fourth compilation is stated in the *Mujālis bil-Mémuneen*, to have been contemporary with, and protected by, the Persian King ROKN-DŌ'DOW'LAH, who died, A. H. 366.

‡ Preliminary Discourse to his translation of the *Hidāyah*, page 22. His observation, at length, is "the *Mussulmans*, who assume to themselves the distinction of orthodox, are such as maintain the most obvious interpretation of the *Koran*, and the obligatory force of the traditions, in opposition to the innovations of the sectaries; whence they are termed *Sunnis*, or traditionists." This, however, is partly open to the same objection, as has been stated to the remark of Mr. SALE.

them respectively. The *Shi'as* allow traditional credit to the *Sahábah*, or companions of their Prophet, especially to the most eminent amongst them, or those who had the longest and most familiar intercourse with *MOHUMMAD*, and to the *Khulfa-i-ráshideen*, or the four *Khuleefahs*, who were the immediate successors of the Prophet, and instructed by him in the principles and tenets of his religion. Also to several intelligent and learned men, who were contemporary with the companions and first *Khuleefahs*, and who are included in the general description of *Tabi'een*, already mentioned; as well as to others, who succeeded these; (the *Tabá-i-tabi-teen*;) and have verified their reports of traditions, by citing the names of the persons, through whom they were successively traced to their genuine source, the inspired Apostle of God.*

THE *Shiyá*, on the contrary, give no authority, or credit, to the three first *Khuleefahs*, *ABOQ BUXX*, *ÓMUR* and *ÓTHMÁN*; nor to any other companions of *MOHUMMAD*, excepting such as were partisans of *ÁLEE*. They extend their faith and obedience, however, to the admission of all traditions of their Prophet's sayings and actions, which they

* The nature of this treatise does not admit of a fuller account of the *Shi'as* traditions; which are distinguished by some authors as *Saheeb* (authenticated;) *Husun* (approved;) *Za'eef-ah-shayeb* (weak and poor;) *Mdenkar-i-mad'ood* (denied and imposed;) by others, as *Md'mood* (vouched, or certified;) and *Md'serai*, or *Mdenkud* (detached, or divided.) The *Md'mood* are also subdivided as *Murfaed* (ascending to the Prophet;) *Md'keef* (resting with the *Sahábah*;) and *Mukte'd* (saved or cut short among the *Tabi'een*;) or by another classification as *Md'tawádur* (repeated, successive;) *Mush,hoor* (public, notorious;) and *Wábid* (single, particular.) The *Mishkát*, referred to in a former note, has however been translated by an officer of the *Bengal* establishment, and if it receive sufficient encouragement to repay the heavy expence of printing in *India*, it will be speedily published.

believe to have been verified by any one of the twelve *Imāms*; from whom they take their denomination of *Imāmiyah*; as well as to the precepts and examples of those *Imāms* themselves; the whole of whom they venerate, as being the lineal descendants (through FA'TIMAH), and according to their tenets, the rightful successors, of MOHAMMUD; and the last of whom they believe to be still living, though invisible; it having been predicted of him, that he will return to judge and rule the world; to punish sinners, and those who have departed from the true faith; and to restore and confirm the genuine truths of religion, with piety, justice, and every other virtue.*

When neither the written nor oral law prescribes a rule of decision; the concurrence of the companions of MOHAMMUD (*Imā'ā Sahābah*) is received by the *Sūnees*, as a third source of legal authority: and if

* The names of the twelve *Imāms* are given by D'HERBELLOT, under the head of *Imām*. He has also given a brief statement of the tenets of the *Shi'as*, under the title of *Shi'ah*, *Ali*, and other titles of his valuable, though (as might be expected in so voluminous and multifarious a work) sometimes erroneous and often imperfect compilation. A fuller account of the doctrines and precepts of the *Shi'as* is contained in the 2d volume of CHAMBERS'S *Description de la Religion des Persans*, in the Amsterdam Edition of his *Voyages en Perse* published in M.DCC.XI.) But the most authentic information upon the Jurisprudence of the *Imāmiyah* sect, (which, not having been established, for the administration of justice, in any part of the Company's territories, needs not to be further noticed in this tract,) will be furnished by the completion of a work, the first volume of which is already printed, and entitled — "A Digest of *Mohammedan Law*, according to the tenets of the *Twelve Imāms*," compiled and under the superintendence of the late Sir WILLIAM JONES, extended, so as to comprise the whole of the *Imāmiyah* code of jurisprudence, in temporal matters; and translated, from the original *Arabic*, by order of the Supreme Government of Bengal; with Notes, illustrative of the decisions of other sects of *Mohammedan* lawyers, on many leading and important questions. By Captain JOHN BATLIE, Professor of the *Arabic* and *Persian* Languages, and of *Mohammedan Law*, in the College of Fort William."

this also fail, they allow the validity of reason; restricted by analogy, (*Kyás*) in applying, by inference, the general principles of law and justice, to the various transactions and circumstances of the changeful scene of human life; which, as they could not be all foreseen, it was impossible they should be completely and expressly provided for. This is so clearly stated, with the origin of the principal *Sábnee* sects, who agree in matters of faith, (*ákáeed*), but differ on points of practical jurisprudence, (*fik-h.*) in a section of the *Mokhtusur óo dowul* (compendium of dynasties) of GREGORIUS ABOO'I FURUJ, translated (into *Latin*) by POCOCK, in his *Specimen Historiæ Arabum*; that the following *English* version, will not, it is presumed, be unacceptable, especially as both the *Arabic* original and *Latin* translation, are little known in *India*.*

“ Of the sects (*Muzáhib*) which differ upon the branches, or derivative parts of the law, concerning rules of jurisprudence, and cases of disquisition, four are the most celebrated: viz: those of M'ALIK BIN-I ANS; of MOHUMMUD BIN-I IDREES, ó' SH'AFÍJEE; of AHMUD BIN-I HUNBUL; and of ABOO HUNEEFAH NAÔMA'N BIN-I THA'BIT. The fundamental grounds of disquisition (*Ijrihádt*) are also four; the scripture

* ABOO'L FURUJ was a Christian, born at Malathia in Atadulia, or Armenia minor, A. C. 1226. But he wrote in *Arabic*, and appears to have been well versed in the religion and law, as well as in the history, of *Arabia*. V. POCOCK's *specimen historiæ Arabum*, comprising an extract from the dynasties of ABOO'L FURUJ, which, GIBBON observes, “ form a classic and original work on the *Arabian* antiquities ” Published at *Oxford*, in 1650. Also the complete *Latin* version of the original work, by POCOCK, published in 1663. GIBBON has added, upon this, however, that “ it is more useful for the literary than the civil history of the East.” *Cap. L. l. n. 13.*

(*Kitáb;*) the traditionary law (*Sóonnut;*) the concurrence of the prophet's companions (*Ijmá'a;*) and analogy, or analogical reasoning (*Kiyás*). For, when any legal question arose, respecting what was lawful or unlawful, a regular investigation took place, in the following manner. First, they searched the book of Almighty God (the *Korán;*) and if any clear text were found in it, such was adhered to. But, if not, they sought for a precept, or example, of the Prophet; and abided by it, if applicable, as decisive. If none such were discovered, they inquired for a concurrent opinion of the *Sahábah;* who, being directed in the right way, are not open to suspicion of misleading; and therefore, if their sentiments could be ascertained, on the point in question, they were deemed conclusive. If not, an ultimate resort was had to analogy and reason; the variety of contingent events being infinite; whereas the texts of the law are finite. It thus appears certain that the exercise of reason may be proper and necessary in legal disquisition. IMÁ'M DA'OOD of *Isháhn*, however, entirely rejected the exercise of reason; whilst, on the contrary, ABOO HUNEEFAH was so much inclined to it, that he frequently preferred it, in manifest cases, to traditions of single authority. But MA'LIK, SHAFI'EE, and IBN-I HUNBUL, had seldom recourse to analogical argument, whether manifest or recondite, when they could apply either a positive rule, or a tradition. This gave rise to their different opinions and judgment; which are recorded in books that treat of their disputations; yet neither infidelity, or error, is to be charged against them on this account."

THE four principal jurists, and founders of sects, among the *Sóonnees*, who are noticed by ABOO'L FURUJ, have been particularly mentioned

in the notes of Pocock's specimen, already referred to; in the *Bibliothèque* of D'HERBELOT; and in the preliminary discourses of SALE and HAMILTON.* The doctrines of MA'LIK, and IBN-I HUNBUL, are not known to prevail in any part of *India*. Those of SHA'FI'EE have a limited prevalence on the sea coast of the peninsula; and are understood to obtain among the *Malays*, and other Mosulman inhabitants of the Eastern Islands. But the authority of ABOO HUNEEFAH, and his two disciples, ABOO YOOSUF and IM'AM MOHUMMUD, is paramount, and exclusively governs judicial decisions, in *Bengal* and *Hindustan*, as well as at *Constantinople*, and other seats of Mohumman dominion in *Turkey*.

* Their names, at length, are—1. ABOO HUNEEFAH NAÔMAN BIN-I TAA'BIT; or, as pronounced in *India*, SA'BIT 2. ABOO ÂBDÖÖLLAH MA'LIK BIN-I-ANAS, or as otherwise read, ANUS. 3. ABOO ÂBDÖÖLLAH MOHUMMUD IBN-I-IDREES ÖÖ'SHA'FI'EE, or a descendant from SHA'FI'. 4. ABOO ÂBDÖÖLLAH AHMUD IBN-I HUNBUL. The first is commonly called ABOO HUNEEFAH, meaning the father of HUNEEFAH, and therefore is improperly cited, in the translation of the *Hidāyah*, by the name of HUNEEFAH only; which, moreover is a feminine appellation, and was the name of the second wife of ÂLEE. (Vide Tit. HANIFAH, in the Bib. of D'HERBELOT) He was born at *Koofah*, about A. H. 80; (some say ten, and others twenty-one, years earlier,) was instructed in the traditions, by IM'AM JÂFUR-I SA'DIK, the sixth *Imâm*; who, as an authority for the precepts and actions of MOHUMMUD, is esteemed by the *Sunnies*, as well as by the *Shi'ahs*; (not the *Shedh* Doctor, ABOO JÂFUR, mentioned in a former note; as erroneously stated in HAMILTON's Preliminary Discourse, p. xxiii. Vid. Tu *Giäfar* in the *Kib. Or*.) and died in prison, at *Bughdād*, in the *Khiläfat* of MUNSOOR, A. H. 150. The founder of the second sect is known by his proper name MA'LIK. He was born at *Mudeenab*, between the years 90 and 95 of the *Hijrah*; and died, at the same place, in a state of religious retirement, during the reign of HA'ROON ÖÖ'RUSHEED, A. H. 179. The patronymic, *Shafiee*, usually distinguishes the third leader; who was born at *Gaza* or *Astaklon*, in *Palestine*; in the hundred and fiftieth year of the *Hijrah*; and died at *Cairo*, (where the famous SALAH ÖÖ'DREN, some centuries afterwards, founded a College, in honour of his memory and doctrines,) A. H. 204. The last chief, AHMUD, is more generally called, from his father, IBN-I HUNBUL. He was born at *Bughdād*, or according to some at *Muru*, or *Muree*, in *Khoräsän*, A. H. 164, and died at *Bughdād*, where he attended the lecture of SHA'FI'EE, A. H. 241.

and *Tartary*. It will therefore be sufficient to state the system of **ABOO HUNEEFAH**, with the illustrations, and amendments, of **ABOO YOOSUF** and **IM'AM MOHUMMUD***; noticing, after the manner of the *Hidáyah*, any particular opinions of the other orthodox sects, upon points of importance, which may appear to require it.

It has been remarked by Sir W. JONES, in his preface to the *Sirdi-jeeyah*,† “that although **ABOO HUNEEFAH** be the acknowledged head

* **ABOO YOOSUF YA'KOUB BIN-I IBRA'HEEM ōOL KOOFEE**, was born at *Keefah*, A. H. 113; and after finishing his studies under **ABOO HUNEEFAH**, was appointed *Kāzee* of *Bughdād* by the *Khaleefah*, **HA'DEE**. He was afterwards, in the reign of **HA'ROON ōO' RUSHEED**, made *Kāzee ōol Kōzāt*, or chief judge; and retained that high station, (which is said to have been first instituted for him) until his death A. H. 182—**ABOO ABDŌLLAH MOHUMMUD BIN-I HUSUN ōO' SHY'BA'NEE** (of the tribe of *Shy'bān*) was usually called. **IMA'M MOHUMMUD**, was born at *Wāsit*, in *Arabian Irāk*, A. H. 132. He was a fellow-pupil with **ABOO YOOSUF**, under **ABOO HUNEEFAH**, and on the death of the latter, continued his studies under the former. He is also said to have received instruction from **MA'LIK**. He was appointed by **HA'ROON ōO' RUSHEED** to administer justice in *Irāk-i ajum* or *Persian Irāk*, and died at *Ry'*, the former capital of that province, A. H. 179; or, according to the *Rōnuz ōo'riyābeen*, an esteemed history from the commencement to the 759th year of the *Hijrah*, by **YAFI'EE**, A. H. 189. (See further particulars respecting **ABOO YOOSUF** and **IMA'M MOHUMMUD**, in **HAMILTON's Preliminary Discourse**.) **ZŌOFUR BIN-I HOOZE'L**, and **HUSUN BIN-I ZIYA'D**, (the former of whom held the appointment of chief magistrate at *Busrāh*, where he died A. H. 158) were also two distinguished contemporaries, and scholars, of **ABOO HUNEEFAH**; and are sometimes quoted as authorities for his doctrines; especially when the two principal disciples are silent.

† A work of authority upon the *Mohummudan law of inheritance*, translated and published, with a commentary, by Sir W. JONES, in the year 1792. This is the only part of the *Mosulman Digest*, undertaken by the venerable judge in 1788, which his various avocations and studies allowed him to complete. He deemed it worthy of being exhibited entire, as containing the “*Institutes of Arabian law on the important title mentioned by the British legislature (in the Statute 21. GEORGE III. Chapter LXX) of inheritance and succession to lands, rents, and goods.*” And it is of particular value to the jurisprudence of *British India*, as the *Hidáyah*, translated by Mr. **HAMILTON**, does not include the law of inheritance. It has

of the prevailing sect, and has given his name to it, yet to great veneration is shown to ABOO YOOSUF, and the lawyer MOHAMMUD, that, when they both dissent from their master, the Moosulman judge is at liberty to adopt either of the two decisions, which may seem to him the more consonant to reason and founded on the better authority." This remark corresponds with the received opinion of present lawyers; and is sanctioned, for the most part, by a passage to the following effect in the *Hummadeeyah*.^a " *Futwas* (law decisions, or opinions) are given primarily, according to the doctrine of ABOO HUSSEYAH; next according to ABOO YOOSUF; next according to IM'AM MOHAMMUD; next according to ZOOFUR; and then according to HUSUN BIN-I ZIY'AD.

not been ascertained when the author of the original treatise lived. But the *Kushf oo' Zuneen*, (or *dhuneen*, as pronounced in *Arabic*) the bibliographical work of HA'JEE KHULFAN, which furnished materials for a considerable part of the *Bibliothèque Orientale*, (Vid. GALAND's preface, p. xiv. Ed. M DCC LXXVI) mentions it, under the title of *Furayid oo' Sujawundee* in the following terms; together with the date of the commentary of SY'YUD SHUREEF; the substance of which is given by Sir W. JONES, with that of a recent *Persian* comment, by MOU'LAVEE MOHAMMUD KA'SIM, who was employed by Mr. HASTINGS to translate, from the *Arabic* into *Persian*, both the *Sirajee yah* and the *Shuree, feryah*. " The *Furayid-oo' Sujawundee*, composed by IMA'M SIRA'J OO'DEEN, MAHMOOD BIN-I ABD OO' RUSHEED, of *Sujawund*, is commonly called the *Furá,een-i Sirajee,yah*. It is held in high estimation and in general use. Many of the learned have written commentaries upon it, to the number of forty; the best of which is the comment of SY'YUD OO' SHUREEF ALEE BIN-I MOHAMMUD, of *Joorján*; finished, at *Sumurkund*, in the year (of the *Hijrah*) 804. This commentary is of the first authority, and universally received. Several Scholiasts, of erudition, have given annotations upon it.

* A collection of legal expositions, by ABOO'L FUTHA, ROHN OO DEEN IBN-I HOSA'AM, *Moofsee* of *Nágór*, in the *Dukhun*; and dedicated to his teacher, HUMAD' OO' DEEN, AMMUD, chief *Kázee*, of *Nuhr wálah*. The time when this work was compiled is not exactly known; but, though of modern date, it is held in considerable estimation. The court of *Nizamut Ádálut* possess a complete copy, obtained for them, with some other law books, by Lord TEIGNMOUTH, from the *Nuwáb Vizeer*, in the year 1797.

It is said, that if ABOO HUNEEFAH be of one opinion, and his two disciples of another, the *Mooftee* is at liberty to chuse either; (but the preceding rule must be observed, when the *Mooftee* is not a scientific jurist; (and therefore not competent to judge of the opposite opinions.) This is copied from the *Koonyah*. * In judicial decrees however a preference is given to the doctrine of ABOO YOUSUF (who was an eminent judge); for IMA'M *Surukhsee*† has declared it safe to rely upon ABOO YOUSUF in judicial matters; and that the learned have followed him in such cases; though if there be a difference between the two disciples, whichever agrees with ABOO HUNEEFAH must be preferred. The joint opinion of the disciples may also be adopted, though different from that of ABOO HUNEEFAH, if the difference appear to proceed from a change of human affairs; (*lit.* a change of men, and alteration of times;) and modern lawyers are agreed, that the doctrine of the two disciples may be taken for adjudication in all matters of civil justice."

It appears, however, that the ancient jurists held the authority of ABOO HUNEEFAH to be absolute, although both his disciples might differ from him. This is stated, without reservation, in a chapter, "on the order of authorities to be observed in practice," forming part of the

* A law tract often quoted in the *Futawā-i Ālumgeeree*, not known to be at present extant; and by whom composed, has not been ascertained.

† SHUMS OOL AIMMAH, ABOO BUKR MOHUMMUD, native of *Surukhs*, in *Khorāsān*. The *Moheet* composed by him will be mentioned in a subsequent note. He also wrote a commentary on the *Yāmd-i Sugheer* of IMA'M MOHUMMUD; and a comment upon the *Kāfee ill Hākim*, (stated in the *Kushf-oo'-zunoon* to have been composed by HA'KIM-I SHAHEED, MOHUMMUD, but no longer extant,) which is called *Mubsoot-i Sarukhsee*, and often quoted in the *Hidayah*. He died, at the place of his nativity, A. H. 483.

book entitled *Adab al-Kázee*, or *Adab of the Kázee*, in the *Fihrawi Adlumgeere*, or collection of law cases, compiled by order of the Emperor AA'LUMGEER. The same chapter contains other useful information upon the rules and discretion, under which the Mosulman magistrate is empowered to administer justice; and as it is not long, a literal translation of it is here introduced; omitting only a quotation from the *Mubsoot*, which being nearly a repetition of that given from the *Buday-i-á*, the insertion of both appeared superfluous.

"It is incumbent upon a *Kázee* (or judge) to give judgment according to the book of God; to know what parts of the divine book are in force, and what have been abrogated; to be able to distinguish between the texts which are clear and positive; and such as are of doubtful meaning, having obtained a different interpretation from the learned. If no rule be found in the book of God, the *Kázee* is to decide according to the traditions from the Prophet. He must therefore be competent to discriminate those in force from such as have been superseded; and the spurious and invalid, from such as are genuine and authoritative. He must be acquainted with those which have obtained successive, notorious, or single, verification; and with the character and credit of the reporters of them. Because some are celebrated for their knowledge of jurisprudence (*sh-h ó ádálut*;) as the four first *Khuleefahs*, and the three ÁBDÖLLAHs, (viz. ÁBDÖLLAH IBN-I ÖMÜR, ÁBDÖLLAH IBN-I ÁBBA'S, and ÁBDÖLLAH IBN-I MUSÖÖD, three of the most learned of the companions;) whilst others are esteemed on account of their long and familiar intercourse with the Prophet, and their perfect recollection of the traditions; and they are preferred according-

by the former as the best authorities on the general principles of legal science; the latter for the authenticity of particular traditions. If a case arise to which none of the traditions, derived from the Prophet, may be applicable, let the *Kázee* determine it according to the concurrent opinion of the *Sahábah* (companions), for their concurrence affords a just and obligatory rule of conduct. If there be a difference of opinion among the companions, let the *Kázee* compare their respective arguments, and follow those which, on investigation, may appear to him preferable; supposing him qualified to enter into such a disquisition. He is not authorized to reject the whole of these opinions, and adopt a judgment of his own, altogether novel. For the companions have agreed upon this point, that although they may differ from each other, it is not lawful to institute new doctrines, at variance with the whole of them. KHUSA'F* holds the contrary opinion, that when the companions differ, the *Kázee* may adopt a judgment altogether distinct, as their dissention affords ground for disquisition: but what is above stated has the best foundation. When the companions have agreed upon a point, in which one of their followers (*tábíleen*) has dissented from them; if the dissenter was not their contemporary, his opposition has no weight; and a judgment given conformably thereto, against the concurrent opinion of the companions, would be invalid: but if he were contempo-

* IMA'M ABOO BUKR, AHMUD BIN-I OMUR, surnamed KHUSA'F, or the farrier. He composed the most celebrated of the works known under the title of *Adáb eel Kázee*, or duties of the *Kázee*; and is stated, in the *Kushf oo Zuneen*, to have died A. H. 261. A high encomium is added upon his composition; which is said to consist of 120 Chapters, replete with useful information. Several learned men have written commentaries upon it, of which the most esteemed is that of IMA'M OMUR BIN-I ABD-OL AZEEZ, commonly called HOUSSAM, the martyr, killed A. H. 536.

rary with them, and then expounded the law in opposition to their opinions, and they gave sanction to his disquisitions, as in the instances of SHORY'M and SHABEE,* the concurrence of the companions does not bar the opposite exposition, so admitted. With respect, however, to expositions which have no other authority than part of the *Tābiṣeen*, there are two reports of the sentiments of ABOO HUNEFAN. One, that he did not consider such to be authoritative; and this appears to be the true doctrine. The other, contained in the *Nuwādir* † states, that if some of the followers of the companions have given *Fatwas* in their time, and have received from the latter a sanction to their disquisitions; as SHORY'M, HUSUN, ‡ and MURROOK BIN-I AJDĀ, || their decisions should be observed. It is thus written in the *Mohael*, §

* The first was *Kāzee*, the second *Mosṭafee*, of *Koofah*, in the first century of the *Hijrah*; and they were esteemed two of the most learned men of their age. The former, whose name at length, is ABOO OMY'YAH SHORY'M BIN OOL HIRA'S OOL KINDEE, held the station of *Kāzee*, at *Koofah*, for seventy five years, and died A. H. 78 or 80; after resigning his office the year before his death. The entire name of the latter is ABOO OMAR AL-ḤAKīm SHURAHNEEL OO SHABEE, deriving his surname from the town of *Shāb*, in *Arabia*. He died A. H. 104.

† Ten different works of this name, (meaning, literally, *stars, stars*) are specified in the *Kushṣo Zunn*; of which one was composed by IMĀM MOHUMMUD, the disciple of ABOO HUNEFAN; and is probably that here referred to. It is considered to be of less authority than his five other works, the *Jāmi-i sugheer*, *Jāmi-i kubra*, *Mubṣṣar*, *Ṭahṭee*, and *Ḍiyya*, which are well known, and frequently quoted, under the general designation of *Zahir al-Rawāḍ*, the conspicuous reports.

‡ Vid. *Bib. Or. Tit. Hassan al Basri*.

§ A learned native of *Humādan*, who became a convert to *Islām*, during the life of MOHUMMUD; and died at *Koofah*, A. H. 62.

¶ There are three works of this title; all of which are quoted in the *Futūḥ-i Adlunger*; but the two others are distinguished by the addition of *Surukibae* or *Boorhānee*. The two latter will be mentioned in a subsequent note. The *Mohael*, here referred to, is supposed to have

If the concurrent opinion of the companions be not found in any case, which their followers may have agreed upon, the *Kāzee* must be guided by the latter. Should there be a difference in opinion between the followers, let the *Kāzee* compare their arguments and adopt the judgment he deems preferable. If, however, none of the authorities referred to be forthcoming, and the *Kāzee* be a qualified jurist; (*Ahl al-Ijtihād*, literally, a person capable of disquisition;) he may consider in his own mind what is consonant to the principles of right and justice; and applying the result, with a pure intention, to the facts and circumstances of the case, let him pass judgment accordingly. But if he be not a qualified person, let him take a legal opinion from others who are versed in the law, and decide in conformity thereto. He should, in no case, give judgment without knowledge of the law; and should never be ashamed to ask questions for information and advice. It is further requisite that the *Kāzee* attend to two rules: first, that when the three *Imāms* (*ABOO HUNEEFAN*, *ABOO YOUSUF*, and *IM'AM MOHAMMAD*) all agree, he is not at liberty to deviate from their joint opinion, upon his own judgment. Secondly, when the *Imāms* differ, *ABDULLAH BEN-I MOSA'RUK* * says, the *Kāzee's* sentence is to be given according to the

been written by *MUWEEZ NA'RÖZZE* son of *Nyshāpoor*, who, in the notes prefixed by *SAYED AHMED-I HUNAWER* to an old copy of the *Hidayah*, purchased at *Mukkah*, is said to have compiled the opinions of the followers of *ABOO HUNEEFAN*, in regular series; whereas other compilers had blended them. This *Mohbet*, however, is not extant in *India*, and is only known by quotations from it.

* One of the pupils of *ABOO HUNEEFAN*, surnamed *MURÖÖZZE* from *Murree*, the place of his nativity. He was held in high veneration for his piety, and his tomb is said to be visited, at *Hit*, in *Arabian Prāk*. (Vid. *Bib. Or. Tit. Abdalla*). He died at the age of 63, A. H. 181, (*Mirāt col-āālam*).

opinion of ABOO HUNERFAH, because he was one of the immediate followers, and contemporaries, of the companions, and opposed them in his fatwas. So it is in the *Mohet* of SHUMS-OOZ ALIMHAN.

" If no precedent be found from ABOO HUNERFAH and his disciples, and the case have been determined by subsequent lawyers, the *Káze* is to abide by the judgment of the latter, unless there be a difference in their decisions, in which event the preference is left to his discretion. If not even a modern precedent be forthcoming, the *Káze* may exercise his own reason and judgment, provided he be conversant with jurisprudence, and have consulted with sages of the law. In the commentary of TANA'VEE, † it is stated, that if the *Káze* pass sentence on his own judgment, in opposition to the manifest letter of the law (*Nusx*), such sentence is not valid. But if the sentence be not contrary to the clear letter of the law, and the *Káze*, after passing it, should change his opinion, his former judgment is, nevertheless, valid: though

* The author of this work, which is extant, and held in high estimation, is stated, in the *Kushf-ee Zuneen*, to be SHUMS-OOZ ALIMHAN, ABOO BUKR MOHUMMUD, of *Sarkhsh*, mentioned in a former note. The *Mohet-i Boorhanee*, composed by BOORHAN-OO' DEEN, MAHMOOD BIN-I AHMUD, is also noticed in the *Kushf-ee Zuneen*; but without any particulars of the author. He is mentioned by D'HERRAZOT, under the title of *Sarkhshi*, as having been born at *Sarkhsh*; and having gone from thence into *Syria*, where he superintended a College at *Aleppo*; and died at *Damascus*, A. H. 571. His *Mohet* is known in *India*; and an incomplete copy is possessed by the court of *Nizám-ud-Daulat*; but it is less esteemed than that of SHUMS-OOZ ALIMHAN.

† IMA'M ABOO JAFUR AHMUD BIN-I MOHUMMUD, of *Tahá* (a town in upper Egypt) is one among the numerous commentators of the *Jámá-i Sugheer* of IMA'M MOHUMMUD. He also wrote an abridgement of the doctrines of ABOO HUNERFAH, and his two disciples, intitled *Makhtusur-i Tahávi*. Both works are often quoted, as authorities; but are not known to be now extant. He is stated in the *Kushf-ee Zuneen*, to have died A. H. 371.

his future adjudications must be regulated by his recent opinion. This is the doctrine of the two elders (SHY'KH M. VIZ. ABOO HUNEEFAH and ABOO YOOSEF,) and IMAM MOHUMMUD agrees with them, provided the second opinion of the *Kázee*, in such cases, be deemed by others preferable to the first. It is further stated (by TAHAVEE) that if the ancient jurists have formed different opinions upon any point, and their successors have agreed upon the opinion to be preferred; according to the two elders, this agreement does not remove the effect of the former difference; but IMAM MOHUMMUD thinks it is removed thereby. SHY'KH OOL ISLAM SHUMS OOL AIMNAH SURUKSEE, reports, however, that all the disciples of ABOO HUNEEFAH agree in opinion upon this point, and that a few of the learned only hold the continuance of the original dissent, notwithstanding the subsequent agreement. If the lawyers of one age concur in any particular doctrine, and a *Kázee*, in after times, differing in opinion from them, with an upright intention, pass an opposite judgment; some hold his so doing to be legal, provided there were an original difference among the learned upon the doctrine in question; whilst others deem it illegal, notwithstanding such original difference; but all agree upon the illegality of the opposite judgment, supposing no difference of opinion to have been at any time entertained upon the subject. In the *Futáwá-i Itábiyah*:* it is stated, that if a *Kázee* take an exposition of the law from a *Mooftée*, and differ in opinion from the latter, he is to pass sentence in the case according to his own judgment; provided he be a person of understanding and knowledge; and that if

* The author of this work, ABOO NUSR AHMUD BIN-I-MOHUMMUD OOL ITABEE, of *Bekhárá*, is mentioned in the *Kushf oo Zunoon* as having also written a commentary on the *Jámá-i Sugheer* of IMAM MOHUMMUD. He died A. H. 586.

the sentence be passed against his own opinion, in deference to that of the *Mohftee*, it is according to the two disciples (SA'IBIY'N, viz. ABOO YOUSUF and IMA'M MOHUMMUD) invalid; in like manner as in matters of religious preference on presumption it is forbidden to act upon the judgment of others: but ABOO HUNEFAH holds the sentence to be valid in such cases, as it is the result of legal disquisition. Supposing the *Káze* not to have exercised his own reason on the case, at the time of his giving judgment according to the opinion of the *Mohftee*; and that he subsequently forms an opinion, at variance with that of the *Mohftee*; IMA'M MOHUMMUD says, his sentence is liable to abrogation; but ABOO YOUSUF affirms, it is not affected thereby; in the same manner as it would not be affected if the *Káze* had passed sentence on his own opinion, and had afterwards changed that opinion. The foregoing is copied from the *Tátárháneyah*.*

“ WHEN there is neither written law, or concurrence of opinions, for the guidance of the *Káze*, if he be capable of legal disquisition, and have formed a decisive judgment on the case, he should carry such judgment into effect by his sentence, although other scientific lawyers may differ in opinion from him; and should not be governed by their sentiments, in opposition to his own: for that which, upon deliberate investigation, appears to be right and just, is accepted as such in the sight of God. If however the persons, who declare an opinion different from that of the *Káze*, be superior to him in science, and he consequently adopt their judgment, without questioning the grounds of it, from ref-

* Vid *Bib. Or. Tatarikhân*. An imperfect copy of the work referred to, entitled *Futáwá-i Tátárháneyah*, is in the possession of the court of *Nizámut Adálut*.

rest to their superior knowledge, ABOO HUNEZAH admits the legality of his proceeding. ABOO YOOSUF and IMA'M MOHUMMUD, on the contrary, do not allow it to be legal, unless he ultimately adopt their opinion as the result of his own judgment. This, at least, is one report; but another says, that the master and his two disciples held, respectively, the reverse of what has been mentioned. If, in any case, the *Kázee* be perplexed by opposite proofs, let him reflect upon the case, and determine as he shall judge right: or, for the greater certainty, let him consult other able lawyers; and if they differ, after weighing their arguments, let him decide, as appears just. Should they agree with each other, but differ from his own opinion on the case, he is to adhere to the latter until he be convinced it is ill founded, and may give judgment accordingly; but not precipitately, or until he has duly weighed and examined the whole of the circumstances and evidence. Let him not fear or hesitate to act upon the result of his own judgment, after a full and deliberate examination; but let him beware of a doubtful and conjectural decision, without complete investigation, as such will not be approved in the account of his actions to God; though, from want of certain information to the contrary, it may pass as a valid sentence among men. What has been here said supposes the *Kázee* to be a *Möjtahid*, or scientific jurist, competent, from his talents and learning, to undertake legal disquisition. If he be not a person so qualified, but possesses a knowledge and full recollection of the points and cases determined by the eminent lawyers of his persuasion, let him give judgment according to the tenets of those in whom he confides; and whom he believes it right to follow. Should he not have a perfect recollection of decided law-points, let him act upon expositions

of the law, by *Möftees* of the orthodox doctrine; or if there be only one such *Möftee* on the spot, his single exposition may be acted upon, without fear of imputed deficiency. It is thus written in the *Budayî,â*.*

"THE legal meaning of *Ijtihâd* is the diligent exercise of the mental faculties in search of the thing desired; and the requisite qualification of a *Möjtahid* is a discriminative knowledge of what is contained in the book of God, and in the traditions from the Prophet, relative to legal rules and ordinances (*ahkâm*.)† It is not essential that he should also know the moral precepts and admonitions included therein. It has been likewise declared that a person, whose general rectitude exceeds his deviations from right, may lawfully practise *Ijtihâd*, or disquisition. But the definition above given is accurate: as stated in the *Fosool ööl İmâ-deeyah*.† The most correct account given of a *Möjtahid* is, that he have a comprehensive knowledge of the divine book, with the different interpretations thereof; a full acquaintance with the traditions, their gradations, texts, and comments; a right understanding, or power of just rea-

* A commentary on the *Tohfut ööl Fokahu*, of SHY'KH ÖLA OO'DEEN MOHUMMUD, of *Sumurkund*, by his pupil, ABOO BUKR, BIN-I MUSÖOOD, of *Kâshân*, in *Persian Irâk*. The author of the *Kushf oo' Zunoön* states the death of the latter to have been A. H. 587; and adds, the master was so well pleased with the comment of his scholar, that he gave in marriage to the latter his daughter FA'TIMAH, who was also learned in the science of jurisprudence. The entire name of the commentary is *Budayî,â oo'Sunayî,â fee turteeb ööl Shurâyi,â*. Both the text and comment are quoted as authorities; but neither is known to be now extant in *India*.

† By ABÖÖL FUT, H MOHUMMUD BIN-I ABOO BUKR, of *Murghenân*. He is stated, in the *Kushf oo' Zunoön*, to have composed the work quoted, A. H. 651, at the College founded by İMAD ÖÖL-MOOLK, in the suburbs of *Sumurkund*. It contains forty sections, on civil transactions (*Moâmulât*) only; and being left incomplete at his death, was finished by his son, JUMA'L OO'DEEN. A copy is among the books of the *Nizâmut Âdâlut*, and it is considered a work of authority.

soning; and experience in human affairs and usages. This is quoted from the *Káfec*.*†

HAVING thus stated the authorities for the Mohummudan law, and the preference to be observed, or discretion allowed, when they differ; it may be proper to add a short notice of the books of jurisprudence which are esteemed by the *Huneefeeyah* sect of *Sóonee* lawyers, for practical exposition of the temporal law; especially such as are extant and govern judicial decisions in *India*.

ABOO HUNEEFAH himself does not appear to have left any work upon jurisprudence.† His legal doctrines were recorded and illustrated by his disciples; particularly by IMAM MOHUMMUD; whose most celebrated law-tracts, entitled the *Jamá-i sugheer*, *Jamá-i-kubeer*, *Mubsoot*, *Zeeádát*, and *Siyur*, have been already noticed, as collectively quoted by the title of *Záhir öö ruwáyát*.‡ These works are described in the *Kushf öö*

* A commentary on the *Wáfec*, and written by the same author IM'AM ABOO'L BURKA'T, ÁBDÖÖLLA BIN-I AHMUD, commonly called HAFIZ ÖÖ' DEEN, of *Nusuf*, who died A. H. 710. He also wrote the *Kunz öö' Dukáyik*, a work of high authority, and extant in *India*; but eclipsed by its comment the *Buhr-i-Ráyik*, composed in the tenth century of the *Hijrah* by ZYN ÖÖL ÁA'BIDEEN IBN-I NUJERM, of *Egypt*. Vid. Tit. *Nagim* of D'HERBELOT, who appears however to have stated the year of his death A. H. 670, instead of 970; which is mentioned more than once in the *Kushf öö' Zunoön*.

† Mr. HAMILTON mentions three treatises, on theological subjects, as written by ABOO HUNEEFAH: viz. the *Másnad*, *Filk-al-êlm*, and *Moállim*. Of these the *Másnud* is described in the *Kushf öö' Zunoön*, as a book of traditions. The work apparently intended as the second, but misnamed *Filk-al-êlm*, instead of *Fil kulám* (on theology,) is well known in *India*, by the name of *Fikb-i-Akbur*. The third is unknown. D'HERBELOT, who seems to have been Mr. HAMILTON's principal authority, mentions the three works, under the title of *Abou-Hanifah*.

‡ Mr. HAMILTON (in his Preliminary Discourse, p. 36.) has inadvertently stated the *Jamá-i-kubeer* to be a collection of traditions, called also the *Jamá-i-sabesh*, by YERSOO Mo-

Zunoon as being of the first authority for the opinions of ABOO HUNEEFAH and ABOO YOOSUF,* as well as of IMA'M MOHUMMUD. Various commentaries are also stated to have been written upon them during the early ages of the Mohummudan era; and several are quoted in the *Futawá-i-Áálumgeeree*, compiled in the reign of AU'RUNGZEB.† But nei-

HUMMUD BIN YESSO AL TERMAZI. The apparent origin of this mistake has been pointed out in a former note. He further remarks that the author of the *Jamá-i-sugheer* is uncertain. But independently of numerous other authorities, IMA'M MOHUMMUD is expressly cited in the *Hidáyah*, as the author of both works, and of the *Mubsoot*. (See Vol I. of the translation, p. 153.) Mr. HAMILTON has been led into another error, by supposing the *Mubsoot*, quoted in the *Hidáyah*, to have been written by FUKR-ÖÖL ISLA'M BUZDUVEF; whereas, of the two *Mubsoot* cited by the author of the *Hidáyah*, one is the composition of IMA'M MOHUMMUD, above noticed; and the other was composed by SHUMS ÖÖL AIMMAH SURUKHSEE, as observed in a preceding note.

* The only work known to have been composed by ABOO YOOSUF is an *Adab ööl Káree*; and the reputation of this has been superseded by the celebrity of KHUSAF's tract of the same title, already mentioned. He is said, however, to have furnished his pupil, IMA'M MOHUMMUD, with notes (*amálee*) for a considerable part of his compositions; particularly for the *Jamá-i-sugheer*.

† The principal commentators of the *Jamá-i-sugheer* are SHUMS ÖÖL AIMMAH SURUKHSEE; ABOO BUKR AHMUD RA'ZEE, commonly called JUSSA'S. (the plasterer;) ABOO JAFUR AHMUD TAMA'VEE; FUKR ÖÖL ISLA'M ÁLEE BUZDUVEE; ABOO NUSUR AHMUD ÖÖL ÍTA'BEE of *Bokhárá*; ABÖÖ'L LYE NUSUR, of *Samurkund*; ABOO NUSUR AHMUD, ISBEJA'BEE; HUSUN BIN-I-MUNSOOR, of *Öüzjunä*, better known by the appellation of KA'ZEE KHAN; TAJ-ÖÖ' DEEN ABD ÖÖL GHUFUR KURDUKEF; ZUHFR ÖÖ DEFN AHMUD TUMURTA'SHEE; and KA'ZEE MUSA'ÖÖD, of *Yuzd*; and ABOO SÁEED MÖÖVEHUR, of the same city; whose commentary is quoted by the title of *Tuhzeeb*. The seven persons first mentioned have also written comments on the *Jamá-i-kubeer*; besides KA'ZEE ABOO ZY'D ABDÖÖLLAH, of *Duboss*; BÖÖRHAN ÖÖ' DEFN MAHMOOD, author of the *Moheet-i-Böörhánée*; BÖÖRHA'N ÖÖ' DEEN ÁLEE, author of the *Hidáyah*; SHUMS ÖÖL AIMMAH MOHUMMUD, called *Hukwáee* (the confectioner); IEN-I UBDUK JÖÖRJANTEE, and JUMA'I ÖÖ' DEEN MAHMOOD, of *Bokhárá*, whose common designation is HUSEEKEE (the mat-maker;) and whose second commentary is often quoted by the name of *Tukreer*. The *Tukreer* and *Döörur* are also known comments on the work in question; the former by ABÖÖ'L ABBA'S AHMUD; the latter by NA'SIRÖÖ' DEEN MOHUMMUD, of *Damascus*.

ther the texts, or comments, are now known to be in *India*, except an imperfect copy of the commentary of KA'ZEE KHA'N, on the *Jámá-i-sugheer*, which was obtained from the library of the Nuwab of Oudh; and is in the possession of the *Nizámut Adálut*. Nor is there a treatise on the Mosulman law, written during the four first centuries of the *Hijrah*, at present, in the possession of any person, from whom inquiry could be made upon the subject, at *Calcutta*.*

THE oldest work on jurisprudence in the possession of the law officers of the *Nizámut Adálut*, and other learned Mosulman lawyers, in *Calcutta*, is the *Mekhtusur ol Kudooree*, a compendium, or general law-tract, composed by IMA'M ABÖ'L HOSSE'N AHMUD, of *Kudoor*, a quarter of *Bughdád*, who died A. H. 428. It is often referred to in the *Hidáyah*, and described in the *Kushf ol Zunoön* as a book of authority in general use, and held in the highest estimation. It is said to contain twelve thousand

* It does not appear that any work on jurisprudence was published during the first century of the *Hijrah*: or that any was written on the doctrines of ABOO HUMERFAN, during the second century, except the treatises, which have been noticed, of his two disciples ABOO YOUSUF, and IMA'M MOHUMMUD. In the third and fourth centuries, besides commentaries on the works of the latter, (which as fundamental authorities, are denominated *Onel* or *Original*) the following law-tracts are stated to have been composed; and are briefly described in the *Kushf ol Zunoön*. An *Adab ol Kázees* and *Nuwádir*, by MOHUMMUD BIN-I-SUMA'AN, who died A. H. 233. Another treatise, of the former title, by ABOO HAZIM ABD ÖÖL HUMEED, who died in 292. Several treatises of the latter title, by JAN-I-RÖÖSTUM, HISHA'M, and others. Also books of both titles, and a compendium of the law, entitled *Mekhtusur-i Tahávee*, by ABOO JÁFUR AHMUD of *Tahá* in Egypt, who died A. H. 371; and who seems to be the author erroneously cited by the name of ABOO FAKA, in Mr. HAMILTON'S Prel. Dis. p. 38. Another compendium, entitled *Mekhtusur-i Kurkhée*, by ABÖÖ'L HOSSE'N ÁBDÖÖLLAH of *Kurkh* (a ward in the city of *Bughdád*) who died A. H. 340. And a *Nuwádir*, with two other books, entitled *Oúzeen* and *Nuwázil*, by ABÖÖ'L LY'S NUSUR, of *Sumurkund*.

cases; and has been illustrated in numerous commentaries; among which several are quoted in the *Futáwá-i-Áálumgeerec*; but are not now known to be extant in *Hindoostan*. *

THE other books in actual use for expounding the Mohummudan law are of two descriptions. The first consists of texts and comments, which, in a scientific method, state the elements and principles of the law; establish them by proofs and reasoning; and illustrate the application of them by select cases, real or supposed; such as the *Hidáyah*, *Kunz ó' dukáyik*, *Vikáyah*, *Nikáyah*, and *Ashbah^o Nuzáyir*, with their respective commentaries. The second description is commonly, but not always, distinguished by the title of *Futáwá*; and is, for the most part, a collection of law cases, arranged under proper heads, with a short recital of facts and circumstances, without arguments, and with authorities only for the cases as quoted; being intended chiefly for practical purposes; whereas the

* The titles and authors of the principal commentaries are as follow. The *Siráj-i Wubháj*, and *Jóuburab-i-ny'yirab* (the latter abridged from the former) by ABOO BUKR BIN-I-ÁLEE, commonly called *Hudáder* (the blacksmith). AHMUD BIN-I-MOHUMMUD also made an abridgement of the *Siráj-i-Wubháj*, which is quoted by the title of *Bubur-i-Zákhir*. The *Mólltumus ól ikhwán* by ABOO'L MÁA'LEE, of *Ghuzná*. The *Kifáyah*, by SHUMS ÓDL AIMMAN ISMÁEEL, of *Bybuk*. The *Biyan*, by MOHUMMUD BIN-I-RUSOOL of *Tóukát*. The *Lóbb* by JULA'L ABOO SÁEED MÓÓTUMUR, of *Buzdah*. The *Funábee* by BUDE ÓÓ' DEEN MOHUMMUD, of *Ushbootee,ab*. The *Kholásut ó' dúlájel*, by HOSÁ'M ÓÓ' DEEN ÁLEE, of *Mukkah*. The last mentioned commentary is highly praised, for its utility, in the *Kushf ó' Zunoen*, and is stated to have been further improved by the annotations of IBN t SUBREH ÓÓ' DEEN ÓMMA'F, a native of *Tartary*. Mr. HAMILTON, (in his *Prel. Disc.* p. 36, 37.) has erroneously mentioned the commentary of KUDOOREE, as quoted in the *Hidáyah*; instead of his *Mokhtusur*. He appears to have made a further mistake in stating the commentary of KUDOOREE to be upon the *Adub ól Kázee* of ABOO YOOSUF, whereas no comment of that work is noticed in the *Kushf ó' Zunoen*; but *Kudooree* is specified as one of the commentators of the *Adub ól Kázee* of KHUSA'F, mentioned in a preceding note.

elementary works first mentioned are more calculated for study and instruction. The *Futáwá-i Kázee Khán* by FUKR ŌŌ' DEEN HUSUN, of *Oúzjund* in *Furgháná*, who was contemporary with the author of the *Hidáyah*, and whose collection is esteemed of equal authority with that celebrated work, must, in some measure, be excepted from the above remark; as it illustrates many cases by the proofs and reasoning upon which the decision of them is founded.*

THE other *Futáwá* extant in *India*, besides those already mentioned in the preceding pages and notes, are the *Kázzánut ōl Mōstīeen*, *Futáwá-i-Buzáziyah*, *Futáwá-i-Nukshbundiya*, *Mun'h ōl ghufár*, and *Mokhtár ōl Futáwá* by unknown authors; the *Fōsool-i-Isturooshee*, by MOHUMMUD BIN-I MAHMOOD, who compiled it in the 625th year of the *Hijrah*;† the *Futáwá-i-Ibráheemsháhiyah*, by SHA'HAB ŌŌ' DEEN AHMŪD, a native of *Hindoostan*, who composed it for SŌLTAN IBRA'HEEM SHA'H, at

* A complete and accurate copy of the *Futáwá-i Kázee Khán*, supposed to have formerly belonged to the royal library, is among the books of the *Nizámut Adálut*, obtained from *Lukhnow*. The author of the *Kushf ōŌ' Zunoon* and the present *Kázee ōl Kāzzát*, concur in extolling this work, as replete with cases of common occurrence, and consequently of particular utility for practical reference. A digest (*Murattab*) of the cases recited in it is also mentioned in the *Kushf ōŌ' Zunoon*, as made in the seventh century of the *Hijrah*, by a learned Syrian, named MOHUMMUD BIN-I-MŌŌSTUFA, A'FUNDZEE, and entitled *Wuhbájŭŭ' Shuree ūt*.

† The court of *Nizámut Adálut* have a complete copy of this compilation, presented to them, with six other law books purchased at *Lukhnow*, by the *Kázee ōl Kāzzát*, MOHUMMUD NUJM ŌŌ' DEEN. It consists of thirty sections, upon *Moámulát* only: like the *Fōsool ōl Imá-deeyah*, beforementioned. The contents of both were arranged and incorporated in a collection, entitled *Jámá ōl Fōsoolyn*, by BUDR ŌŌ' DEEN MAHMOOD; better known by the name of IBNI-KA'ZEE-I-SUMA'WUNAH, who died A. H. 823. The author of the *Kushf ōŌ' Zunoon* states this work to be in great estimation with the learned, as a civil digest; but though often quoted as an authority, it is not known to be at present in *India*.

Jounpoor, in the 9th century of the *Hjrah*;* and the *Futáwá-i Áalumgeeree*, compiled at *Dehly*, by order of the Emperor *ÁLUMGEER* (also called *ÁA'LUMGEER*) in the 11th year of his reign, corresponding with A. H. 1067.

THE *Hidáyah* is so well known, from the *English* version of it, made by Mr. CHARLES HAMILTON, and published in the year 1791, that it will be unnecessary to say much of it. The *Kázee óol Kóózát*, in his catalogue of books already adverted to, describes it in the following terms. "The *Hidáyah* is a commentary upon the *Bidáyut óol Móobtudee*, and both the text and comment were composed by SHY'KH BÓORHÁ'N ÓO' DEEN ÁLEE, son of ABOO BUKR, of *Murgheenán*, who lived to the age of sixty-two; and, after employing thirteen years in the composition of the latter work, departed from this world A. H. 593. The general arrangement, and divisions of it, are adopted from the *Já-má-i-Sugheer* of IMA'M MOHUMMUD. It is celebrated amongst the learned for its selection of law cases, and connection of them with the proofs and arguments by which they have been determined. Wherefore in every age it has been esteemed by lawyers; many of whom have written comments and annotations upon it." It is spoken of in nearly the same language, by the author of the *Kushf-oo' Zunoon*, who adds, "it is a rule observed by the composer of this work to state first the opinions and arguments of the two disciples (ABOO YOOSUF and IMA'M MO-

* IBRA'HEEM SHAH reigned at *Jounpoor* (during the confusion of the Empire of *Dehly*, consequent to the invasion of TYMOOR) for forty years, and died A. H. 844. The court of *Nizamut Ádalut* possess an entire copy of the work referred to; but it is a mixed collection, and not deemed authoritative.

HUMMUD); afterwards the doctrine of the great IMA'M (ABOO HUSSEIN); and then to expatiate on the proofs adduced by the latter, in such manner as to refute any opposite reasoning on the part of the disciples. Whenever he deviates from this rule it may be inferred that he inclines to the opinion of ABOO YOOSUF and IMA'M MOHUMMUD. It is also his practise to illustrate the cases specified in the *Jamá-i-Sugheer*, and by KUDOORÉE: intending the latter, whenever he uses the expression *he has said in the book*. In praise of the *Hidáyah*, it has been declared, like the *Korán*, to have superseded all previous books on the law; that all persons should remember the rules prescribed in it; and that it should be followed as a guide through life." This eulogium on the *Hidáyah* is confirmed in a paper written by MOU'LAVEE MOHUMMUD RA'SHID, one of the *Mooftees* of the Supreme Court of Judicature and Courts of *Sudr Deewánee* and *Nizámut Adálut*, as well as one of the most learned Mofulmans in *India*; who remarks on the text, and some of the principal comments, to the following effect. "No text or commentary, now extant, can be compared with the *Hidáyah* as a digest of approved law cases, illustrated by the proofs and arguments which establish them. It is therefore, with its comments, fit to be the standard of legal decision in the present times. Many commentaries have been written upon it: but four only, the *Niháyah*, *Ináyah*, *Kifáyah*, and *Fut'h ól Kudeer*, are forthcoming in *Bengal*. The *Niháyah* was first composed: and has superior credit as being the original from which the others have borrowed. But the author of the *Ináyah* has merited esteem by his studious analysis; and interpretation of the letter and meaning of the *Hidáyah*. The *Kifáyah* also deserves commendation, from its concise

statement of the substance of other commentaries, as well as from some additions to them. And the *Fut'h ōl Kudeer* is preferable to the whole, as an ample collection of cases, (rendering it equal in this respect to a *Fut'awq*) expressed with suitable brevity of language."*

THE *Kunz ō' dukáyik* has been already mentioned, as composed by HA'FIZ Ō' DEEN, author of the *Káfee* and *Wáfee*. It is a short ge-

* The *Niháyah* was composed by HOSA'M ŌO'DEEN HOS'E'N IBNI ÁLEE, said to have been a pupil of BÖÖRHA'N ŌO'DEEN, author of the *Hida'yah*. The latter having, from some unknown cause, omitted the law of inheritance, it has been added by the commentator. But this part of the *Niháyah* does not appear to have obtained equal celebrity with the *Furá, eez-i-sirajee-yah* mentioned in a former note. The *Kushf ō' Zunoon* notices two commentaries of the title of *Ína'yah*; the first of which was commenced by ABÖÖ'L ÁBA'S AHMUD, a *Ka'zee* in Egypt, who died A. H. 710; and was completed in the succeeding century, by the *Hijrah* by KAZEE SÁEED ŌO'DEEN, of *Dubur*. The second, which is that referred to as extant in India, was composed by SHY'KH AKMUL ŌO'DEEN MOHUMMUD, who died A. H. 786; IMÁM ŌO'DEEN AMEER KA'TIB BIN-I AMEER ŌMUR, who had previously written another commentary entitled *Gháyut'ōl biya'n*, after employing himself for twenty-seven years at Cairo, and other places, to render his second work more complete, finished the *Kifáyah*, at Damascus, in the 747th year of the *Hijrah*. The *Fut'h ōl Kudeer* is stated to have been commenced by its author KUMA'L ŌO'DEEN MOHUMMUD of *Seewa's*, commonly called IBN-I-HOMA'M, in the 29th year of the *Hijrah*; and to have occupied a considerable part of the remaining period of his life, which was terminated in 861. Other commentaries upon the *Hida'yah* are mentioned in the *Kushf ōo' Zunoon*; but as they are not procurable in India, it will be sufficient to notice the *Fuwáeed*, by HUMEED ŌO'DEEN ÁLEE, of *Bokhárá*, who died A. H. 667; and is supposed by some to have been the first commentator; but his tract, being extremely brief, has been superseded by the subsequent comments; the *MIÁRA'J ŌO'DIRA'YUT*, by KUWA'M ŌO'DEEN MOHUMMUD, also of *Bokhá'ra*, who died A. H. 747; and whose commentary is quoted in the *Ád'lumgeeree*; and the *Ōdáb* by KUMA'L ŌO'DEEN MOHUMMUD, also quoted; though it is described as rather an abstract, than a comment; being a methodical collection of the law cases contained in the *Hidáyah*, without the arguments stated in proof of them. The *Niháyah*, *Ōl Kifáyah*, by TAJÖÖ' SHUREEYUT ŌMUR, is also mentioned in the *Kushf ōo' Zunoon* as a commentary on the *Hidáyah*; but the *Kázee ōl Kŷzát*, in describing an imperfect copy of it, belonging to the *Nizámut Ádálut*, terms it a *Háshée,ah*, or marginal note book. An incomplete copy of the *Kifáyah* is also among the law books of that court.

REMARKS UPON THE

~~Herat~~ treatise of law, used in Mofulman Colleges, as an elementary book of instruction; but superseded, as a book of reference for legal exposition, by its commentaries; of which the following are extant in *India*. The *Tubi,een ööl hukâyik*, by FUKR ÖÖ DEEN ABÖÖ MOHUMMUD Ös-MA'N of *Zyld*; who died A. H. 743. His comment is valued by the followers of ABÖÖ HUNKEFAN, as containing a complete refutation of the opposite doctrine of SHAFI'EE. The *Buhr öö rayik*, by the learned ZY'N ÖÖL AA'BIDEEN IBN-I NUJEEB of *Egypt*, left incomplete, at his death, A. H. 970; and unequally finished by his brother SIRAJ ÖÖ DEEN ÖMÜR, who also wrote a commentary entitled the *Nuhr-i-fâyik*, but of inferior merit to that of ZY'N ÖÖL AA'BIDEEN; which is held in the utmost estimation; and is spoken of in the *Kushf öö Zunoön* as equalled only by the *Fut'h ööl Kudeer*, IBN-I HOMA'M's commentary on the *Hidâyah*. The *Mutlub-i-fâyik* or, as more generally called *Aynce* by BUDR ÖÖ DEEN MOHUMMUD AY'NEE, of *Dubur* in *Arabia*. This commentary is also esteemed, as containing an ample collection of law cases; and though surpassed, in this respect, by the *Buhr-i-rayik*, it has the advantage of having been brought to a conclusion by the author; whose erudition obtained him the title of *Ülämah*, in common with ZY'N ÖÖL AA'BIDEEN.*

* Another commentary on the *Kunz öö duka'yik*, entitled *Maad'un*, is known in *India*. But the name of the author has not been ascertained. The *Essah* by SHY'KH YAKH'Ä, and *Rumz ööl Huka'yik* by KA'ZEE BUDR ÖÖ DEEN MAHMOOD, are also noticed, with the names of some other commentators, in the *Kushf öö Zunoön*; but they are not celebrated, or quoted as authorities. The court of *Nizämut Ada'lut* possess an incomplete copy of the *Buhröo' rayik*; on which the *Käzee ööl Közza't* remarks (in his catalogue) that "it comprizes a compilation of cases, general and particular; with the useful result of the author's researches upon a variety of legal questions; and is received as authentic by the followers of ABÖÖ HUNKEFAN in every city of *Islam*.

THE text of the *Vikāyah*, composed in the 7th century of the *Hijrah* by BOORHĀ'N Ō' SHUREEUT MAHMOOD, son of the first *Sadr Ō' Shuree'ut*, like that of the *Kunz Ō' Dukāyah*, has been superseded, for legal consultation, by its more extensive commentaries; especially by that of the second *Sadr Ō' Shuree'ut*, ŌBY'D ŌLLAH BIN-I-MUSĀOOD, who died A. H. 750; distinguished by the title of *Shurh-i-Vikāyah*; and combining, with the original treatise, an ample comment in illustration of it. But both are used in Mosulman Colleges, for instruction in the science of law, preparatory to the study of the *Hidāyah*; upon which the *Vikāyah* is founded; being, as its title at length imports, (*Vikāyah Ō' riwāyah, fee Musā'el Ō' Hidāyah*;) the Custos, guardian, or preserver, of the reports of cases in the *Hidāyah*. Other commentaries are mentioned in the *Kushf Ō' Zunoon*; but they are not known to be extant in India; or quoted as authorities.*

* Numerous *Huwāshee*, or books of annotation, have also been written on the text and commentaries; of which the most celebrated is the *Hāsheeh* of YŌOSUF BIN-I-JŌNY P, commonly called AKKEE CHULPÉE. This work, entitled *Zukheerut ul Ōkba* is in the possession of the court of Nizāmut Ādālut, who have also a correct and complete copy of the *Shurh-i-Vikāyah*. It may be useful to add that a *Persian* translation of the latter has been made by a person named ABD ŌL HUK SUJA'WUL, of *Surbind*; who in his preface, states it to have been completed A. H. 1076; during the reign of AU'RUNGEZ'S. A copy of this version is in my possession. The language is not elegant; but it bears the character of accuracy; and with a careful revision, it may deserve publication. In bulk it does not much exceed a fourth of the *Persian* version of the *Hidāyah*; made by the former chief *Kāzee*, GHOLA'M YUHYA' KHA'N, and his learned associates, employed for that purpose under the patronage of Mr. HASTINGS; a revised edition of which, under the superintendence of MOU'LAVEE MOHUMMUD RASHID, is now printing, at my suggestion, by order of Government; and besides facilitating the study of the *Arabic* text, will tend to explain and correct the *English* translation; which, though on the whole deserving of praise, has been found in some parts inaccurate, and in many less intelligible than the *Persian* version. It may be proper to add in this place, that in noticing, for obvious reasons, what has appeared upon inquiry to be erroneous or deficient

THE *Nikāyah* was abridged from the *Vikāyah* by the second-SHAH ō' SHURRĀT, already mentioned as the principal commentator on the *Vikāyah*. It is also called *Mokhtusar-i-Vikāyah*, and used as a book of instruction; the rules and cases contained in it being committed to memory by the student. But its utility, for legal reference, is superseded by its commentaries; of which three are extant, composed by ABDŪL MUKĀRIM BIN-I ABDŪLLAH, A.H. 907; by ABDŪL ĀLEZ, BIN-I MOHUMMUD BARJINDER, in the year 935; and by SHUMS ō' DEEN MOHUMMUD, of *Khoristān*, in 941. The whole of these comments are held in esteem; but the latter, entitled *Amāliyat*, is the most copious.*

THE *Ashbāh ō' Nuzāyir* is an elementary treatise, composed in the tenth century of the *Hijrah*, by ZYN ōL Ā'ABIDEEN, already mentioned as the author of the *Buhr-i-rāyik*. It is stated in the *Kushf ō' Zunoon* to consist of seven sections, (denominated *fun*); the two first of which relate to the general principles and rules of law; and the *Kāzee ōl Kāzāt*, in describing a copy of it, which belongs to the *Nizāmut Ādālut*, observes, that "although a short tract, it contains legal *principia*, from which numerous cases may be deduced; wherefore to able lawyers it is of the utmost advantage." Thirteen commentaries upon it are noticed in the *Kushf ō' Zunoon*, but none of them are known to be in India†

in the late Mr. HAMILTON's translation of the *Hidāyah*, no intention whatever is entertained of impeaching the personal merits or reputation of that gentleman; who laboured under a material disadvantage in not having completed his arduous and laudable undertaking in India.

* Complete copies of the three commentaries are among the books procured from *Lahbnow*, for the court of *Nizāmut Ādālut*.

† MOU'LAEE MOHUMMUD RA'SHID possesses two commentaries on the *Ashbāh ō' Nuzā'yir*,

BESIDES the texts and commentaries above described; as in actual use for legal expositions, the *Mujmá ō' buhryn*, a text book composed by MOZUFFUR ō' DEEN AHMUD, of *Bughdád*, A. H. 690, is also in the possession of a learned Mosulman in *Calcutta*, * together with one of its commentaries, written by ÁBD ō' LUTEEF BIN-I-ÁBD ō' L ÁZEEZ; but as no other copy of either the text or comment is known to be forthcoming; they cannot be in general use. †

one of which, called the *Ghumzál Ōyaa*, was written by SY'YID AHMUD BIN-I-MOHUMMUD HUMAVEE. The author of the other is unknown.

* MOULAVEE KUREEM ō' DEEN, by whom (in concert with MOULAVEE MOHUMMUD RA'SHID) I have been materially assisted in preparing the short account given of books on the Mosulman law; and who has made for me a complete *Persian* translation from the *Arabic* original of the *Kutb ō' Zuneen*. He received the *Mujmá-ōl buhryn*, and its commentary, from SHURA'UT MOHUMMUD KHA'N, *Meer Moonshee* to the NUWA'B MOZUFFUR JUNG; who supported a *Madrassah* at *Moershidabad*, in which KUREEM ō' DEEN was *Mudarris* or Lecturer.

† In addition to the books on jurisprudence, which have been noticed; the following are described in the *Kutb ō' Zuneen*; but none of them are known to be at present in *Hindustan*. The *Sjnah* and *Akha'm*, by ABOUL ÁSA'S AHMUD NÁ'EIFEE, who died A. H. 446; the *Tujnees o' Muzeed* by the author of the *Hidáyah*; the *Háwe ōl Huseeree* by MOHUMMUD-BIN-I-IBRAHEEM, of *Husser*, who died A. H. 505. The *Futáwá-i-kóbrá* by SHAHEED HISA'M ō' DEEN ŌAUK, who suffered martyrdom in the 536th year of the *Hijrah*. The *Kholásut ōl Futáwá*, by TAHER BIN-I-AHMUD, of *Bekhárá* who died A. H. 541. The *Mástitukut*, by NA'SIR ō' DEEN, ABOUL KASIM, of *Sumurkund*; finished A. H. 549. The *Háwe ōl Kádes* by KA'ZEM JUMAL ō' DEEN AHMUD of *Ghuzná*, who lived in the latter part of the 6th century of the *Hijrah*. A *Tulkees* (abridgement) of the *Jámá-i-kubeer*, by KUMAL ō' DEEN MOHUMMUD, of *Khilát*, who died A. H. 652. The *Mekhiár*, and its commentary, the *Ikhliyár*, by MUJIB ō' DEEN ÁBDŌLLAH of *Mául*, supposed to have flourished in the 7th century of the *Hijrah*. The *Ōhárur ōl Akhá*, and its comment, the *DŌhrur ōl hŏkhám*, by MOHUMMUD BIN-I-FURA'MOORZ, commonly called MOOLLA KHŌŌSRŌ, who died A. H. 887; and the *Mástituká ōl Akheer*, by IBRAHEEM BIN-I-MOHUMMUD CHULPEE (a *Syrian*) finished A. H. 929. Of these works the three last mentioned only are text books. The remainder (excepting the abridgement of IMAM MOHUMMUD's great *Jámá*,) are collections of cases, of the nature of

Of the books of *Futāwā* which have been mentioned, none appear to require further notice, except the *Futāwā-i-Ālūmgeeree*. Mr. HAMILTON, by an extraordinary mistake, has stated this work to have been "composed in the *Persian language*," by the authority and under the inspection of the Emperor AU'RUNGZĒ'S ;" whereas it is well known to have been written in *Arabic*, the usual language of Mohummudan law and science ; and to have been translated into *Persian*, by order of the Emperor's daughter, the Princess ZE'B ŌŌ' NISA'. Several copies of the *Arabic* original are in *Calcutta* ; and some imperfect copies of the *Persian* version ; or rather of parts of it.† In the catalogue of books appertaining

Futāwā. A further collection, entitled *Kbuzanūt-ŏl futāwā*, by AĀMUD BIN-I-MOHUMMUD, is among the books of the *Nizāmut Ādālut*, and supposed by the *Kāzee ŏl Kōzāt* to have been compiled towards the end of the 8th century of the *Hijrah*. Also a *Persian* compilation, named *Futāwā-i-Kurakbānee*, the cases included in which were collected by MŌŌZLA SUDR ŌŌ' DEEN BIN-I YAKOOB, and arranged, some years after his death, by KURA' KHA'N, in the reign of SHOULTAN ULĀ' ŌŌ' DEEN. The *Kāzee ŏl Kōzāt* has likewise presented to the *Nizāmut Ādālut* a small *Persian* book, entitled *Mokhtār ŏl Ikhtiyār*, written A. H. 971, by Ikhtiyār son of GHYA'S ŌŌ' DEEN HUSUN ; containing, besides the duties of a *Kāzee* and *Mōŏŏŏee*, legal forms of various descriptions for practical use.

* Preliminary Discourse, p. 44.

† Mr. H. COLEBROOKE possesses a folio volume, containing about half of the entire translation, from the commencement to the book upon evidence. I have also a volume which contains from the book on marriage, to that upon endowments, or religious and charitable appropriations. And, at my suggestion, the Governor General in Council has been pleased to instruct the Resident at *Dehly* to endeavor to procure two or more complete copies of the *Persian* version made by order of ZE'B ŌŌ' NISA', with a view to prepare a collated transcript, which may be hereafter printed and published. I have likewise a correct *Persian* translation of the book on *Jināyāt* or offences against the person, made for me, a few years since, by MOU LAVEZ SĀEED ŌŌDEEN, (now law officer of the *Burēly* court of circuit) under the superintendence of his father, the *Kāzee ŏl Kōzāt*, who has added notes of explanation where they appeared requisite. This version will probably be printed and published, as it well deserves to be.

to the *Nizámut Adálut* (among which is an incomplete copy of the Arabic *Futáwá-i Áalumgeeree*) the *Kázee ól Kózáat* describes this work in the following terms :—“ It was commenced A. H. 1067, corresponding with the 11th year of ÁA'LUMGEER's reign. Credible persons have related, that when MEERZA' KA'ZIM, author of the *Áalumgeernámah*, had finished, and presented to his Majesty, the history of the first ten years of the reign, it occurred to the King that there were many books of history in the world, and that from the inclination which mankind have to read such books, they are composed without orders from Kings and Nobles; that the foundation of good government is justice; and that this depends upon a knowledge of the ordinances of the law; that although the learned of every age had compiled expositions of the law, yet in some instances the examples were so dispersed that they could not readily be found, when required; and in others, the cases of less weight were not distinguished from those adjudged to be authoritative; whilst some decisions also had been unnecessarily repeated; and others, though requisite, had been omitted; wherefore it was proper that, in the present reign, a new *Futáwá* should be compiled, to be arranged in the most approved manner; and to contain the most authoritative decisions of law, including every useful case, which had been adjudged, without repetition or omission. As soon as the King had formed this design, he ordered MEERZA' KA'ZIM to discontinue writing the *Áalumgeernámah*; and not to take in future the sum allotted for it from the royal treasury. He then assembled a number of eminent lawyers from the *Punjab*, the environs of *Sháhjahán-ábád*, *Akbur-ábád*, *Ilah-ábád*, and the *Dukhun*; and employed them in compiling the work, which was afterwards

called the *Futāwā-i-Ālūmgeeree*. In truth no other *Futāwā* is equal to it in excellence. It has become celebrated in every city, as well in *Arabia* as in other countries; and is termed at *Mecca* the *Futāwā-i-Hind*, or *Indian* expositions. It is esteemed by the learned of every country, and is received as an authority for law decisions in this empire." It is added, that six lacks of rupees are said to have been disbursed in stipends to the learned compilers, the purchase of books, and other expences attending the execution of the work.

THE *Futāwā-i-Ālūmgeeree* being sometimes the size of the *Hidāyah*, and containing little more than a recital of law cases, without the arguments and proofs, which are diffusively stated in the *Hidāyah*, it must possess an advantage over that work, for practical use, in its greater number of cases and examples. On the other hand, the full illustration of the law, its principles, and the different doctrines promulgated by some of the most eminent expounders of it, which distinguish the *Hidāyah*, give an evident preference to it as a book of elementary instruction. The authority of the *Hidāyah*, as an original composition by a celebrated jurist, who, from his superior knowledge and qualifications, was esteemed a *Mājtahid*, is also above that of the *Futāwā-i-Ālūmgeeree*; which, however valuable, as the latest and most comprehensive collection of cases, is held in less comparative estimation, from its being a modern compilation, made by several persons, of different judgment, and unequal ability. Without contrasting their respective merits, however, the one is universally admitted to be a most useful supplement to the other; and a converseance in both, or an easy means of reference to them in cases of judicial occurrence, must be of essential use towards the due administra-

tion of the Mohummudan law, as far as that law is declared to be the established rule and standard of decision.*

* Mr. HAMILTON's translations of the *Hidāyah* renders it unnecessary to state the general contents of that work. The *Futūwā-i-Ālumgeeree* consists of 61 books (*Kitāb*) in the following order:—1. *Tabārut*, purification, 2. *Sulāt*, prayer. 3. *Zukāt*, alms. 4. *Sīm*, fasting. 5. *Hujj*, pilgrimage. 6. *Nikāh*, marriage. 7. *Ruzdā*, fosterage. 8. *Tulāt*, divorce. 9. *Utlk*, manumission. 10. *Aymān*, vows. 11. *Hiddood*, fixed penalties. 12. *Surikāh*, larceny. 13. *Siyar*, institutes or regulations concerning infidels, apostates, and rebels. 14. *Luket*, foundlings. 15. *Lūktāb*, troves. 16. *Ihāk*, absconding of slaves. 17. *Muskood*, missing persons. 18. *Shirkut*, partnership. 19. *Wukf*, endowment; or religious and charitable appropriation. 20. *Byā*, sale. 21. *Surf*, exchange of coin or bullion. 22. *Kufulut*, bail. 23. *Huwālut*, transfer of debts. 24. *Adub ōl Kāzer*, the duty of a Kāzee. 25. *Qāṣā*, evidence. 26. *Roojoo, & un Shabādut*, retraction of evidence. 27. *Vukūlut*, agency. 28. *Dāwā*, claim. 29. *Ikrār*, acknowledgment. 30. *Sool*, composition. 31. *Mezārūbut*, copartnership in stock and labour. 32. *Wudee,ūt*, deposit. 33. *Ādeeyut*, lending without return. 34. *Hibah*, gift. 35. *Ijārah*, hire and farm. 36. *Mokātub*, covenanted slave. 37. *Wula*, connection of emancipator and freedman; or of patron and client. 38. *Ikrāh*, compulsion. 39. *Hujr*, inhibition and disqualification. 40. *Ma-zoon*, licensed slave, and ward. 41. *Ghusb*, usurpation. 42. *Shoofāh*, right of vicinity. 43. *Kismut*, partition. 44. *Mezāra,ūt*, compact of cultivation. 45. *Mqā,āmulus* or *Mosākāt*, compact of gardening. 46. *Zubāyih*, animals slain by *Zubh*, or incision of the throat. 47. *Oāzbeeyah*, sacrifice. 48. *Kurāhiyut*, abomination, disapprobation, or censure. 49. *Tuhurree*, presumptive preference. 50. *Ihyā ōl muwāt*, cultivation of waste land. 51. *Shirb*, right to water. 52. *Ushribah*, intoxicating liquors. 53. *Syd*, game. 54. *Rihn*, pledge. 55. *Jināyāt*, offences against the person. 56. *Wusāyā*, testamentary bequests. 57. *Mubāzir & Sijillāt*, judicial proceedings and decrees. 58. *Shooroot*, legal forms. 59. *Hiyul*, legal devices. 60. *Khōḥṇsa*, hermaphrodite. 61. *Furā,eez*, rules of inheritance.

Of the sixty one books enumerated, fifty five correspond with similar titles in the *Hidāyah*. Two other books in the latter work, entitled *Diyyut* (the fine of blood), and *Mu,ākūl* (exaction of the fine of blood), are included in the *F. Ālumgeeree*, as chapters of the book of *Jināyāt*. The book of *Shirb* in the *F. Ālumgeeree* forms a section of the book entitled *Ihyā ōl muwāt* in the *Hidāyah*. The remaining five books of the *Futūwā-i-Ālumgeeree*, viz. those entitled *Tuhurree*, *Mubāzir & Sijillāt*, *Shōroot*, *Hiyul* and *Furā,eez*, are not included in the *Hidāyah*.

The general division and arrangement of both the *Hidāyah* and *Ālumgeeree* appear to have been adopted from the *Jamā-i-Sugheer* of IMA'M MOHUMMUD. The same order is also observed in most other works written by the followers of ABOO HUNEEFAH; and the author of the *Buhr-ō-ṛāyik* has endeavoured to shew that it is founded on a principle of suc-

collusive connection. But his reasoning does not appear satisfactory. It may be useful to add, however, that the Mosulman law, in the most extensive sense of the term (*Shurâ*, or *Deen-i-islâm*) comprehends the ordinances of religion, and the duties of man towards his Creator, as well as his rights and obligations towards his fellow creatures. It is therefore stated in the *Buhr-i-râyi* to comprise five principal heads; namely, 1. *Idtihādât*, articles of faith. 2. *Ībādât*, acts of worship and piety. 3. *Moââmulât*, affairs of life, or civil transactions. 4. *Muzâjir*, punishments for the prevention of crimes. 5. *Adâb*, manners, or rules of behaviour. In books of jurisprudence (*fi-k-b*) the first and last heads are omitted. The other three are included; and the head of *Ībādât* always precedes the *Moââmulât*, and *Muzâjir*, as of superior importance.

VIII.

*An ACCOUNT of ASTRONOMICAL OBSERVATIONS taken at the HONORABLE
COMPANY'S OBSERVATORY, near Fort St. George in the East Indies,
in the years 1806 and 1807. To which are added some REMARKS
on the DECLINATION of certain STARS and of the SUN,
when near the ZENITH of that place.*

BY CAPTAIN JOHN WARREN,

OF H. M. 33d REGIMENT OF FOOT.

1. MAJOR LAMBTON having sent his zenith sector to the Madras Observatory in September 1806, I began early in the ensuing month the observations which form the subject of the present paper. As an account of this instrument has already been given to the public, in a paper written by that gentleman, and published in the 8th volume of the Asiatic Researches, I shall only observe here that it came to me in high order, and that I observed constantly with it from October 1806 to June 1807, without perceiving any material change in its powers or mode of performing.

2. IN undertaking a series of observations of zenith distances, I had in view to establish permanently the latitude of the Madras Observatory, on which there seemed still to be a doubt of several seconds, and also to verify the declination of several stars near the zenith, which,

when used for obtaining the latitudes of places, disagreed in their results,

3. THIS laborious and dry enquiry, I am aware can afford but little entertainment to the generality of readers. The present paper, therefore, can only claim the advantage of recording good observations, taken in great numbers, and computed with scrupulous attention: and perhaps of affording some data to astronomers in other climates, for further investigation into the effects of refraction.

4. ALTHOUGH the method for correcting zenith distances at any given time, for aberration, nutation, and solar equation, is well known to astronomers, yet I do not omit giving a general statement of the manner in which I have applied these various corrections to my observations. Such as belong to *Regulus* are given in Table I. and may serve as an example for the rest. For the detail of each respective rule I must refer the reader to books of astronomy, for I have nothing new to offer on the principles upon which they are grounded.

5. I HAVE however to observe, that refraction being one of the subjects under consideration, I have computed it separately for every star, according to Dr. BRADLEY's theory, in which the state of the atmosphere at the time of observation is considered, and without any reference to the tables. The rule may be found demonstrated in VINCE's *Complete System of Astronomy*, Chap. VIII. page 82, and following. I have reduced it, for a more convenient arrangement, into the following form:

TABLE I.

Shewing the Process of deducing the Latitude from the observed Zenith Distances of Regulus.

Months and Days.	Star's A. R.	Star's Longitude.	Place of C's S.	Star's Declin.	Apparent Time of Transil.	Proceſſion.	Nutati.	Aberrat.	Solar Equation.	Total Equation for Declin.	Face of Lamb.	Observed Zenith Distance.	Corrected Zenith Distance.
Nov. 26.	4 29 31	2 8 4 7 35	8 19 46	12 54 26 108	17 49 32 1	32 732	6 494	0 966	0 015	40 907	E.	0 9 56 5	0 9 16 293
Nov. 28.	4 29 31	2 8 6 8 49	8 19 40	12 54 26 104	17 49 0 2	32 826	6 506	1 213	0 049	40 588	W.	0 9 51 8	0 9 10 212
Nov. 30.	4 29 31	3 8 8 10 8	8 19 34	12 54 26 100	17 32 25 6	32 920	6 506	1 449	0 064	40 959	E.	0 9 58 0	0 9 17 041
Dec. 1.	4 29 31	3 8 9 10 51	8 19 30	12 54 26 963	17 28 7 2	32 967	6 510	1 562	0 101	41 140	W.	0 9 51 5	0 9 10 360
Dec. 4.	4 29 31	3 8 12 13 5	8 19 21	12 54 25 892	17 15 9 5	33 108	6 519	1 920	0 154	41 701	W.	0 9 51 35	0 9 9 549
Dec. 10.	4 29 31	3 8 18 18 8	8 19 1	12 54 25 539	16 48 56 9	33 391	6 539	2 613	0 264	42 807	W.	0 9 51 5	0 9 8 693
Dec. 11.	4 29 31	4 8 19 19 1	8 18 58	12 54 25 492	16 44 33 5	33 438	6 543	2 721	0 281	42 983	E.	0 10 2 0	0 9 19 017
Dec. 12.	4 29 31	4 8 20 19 55	8 18 53	12 54 25 445	16 40 9 7	33 485	6 510	2 822	0 299	43 122	W.	0 9 53 79	0 9 10 668
Dec. 17.	4 29 31	5 8 23 24 34	8 18 59	12 54 25 309	16 18 5 8	33 721	6 562	3 577	0 389	44 049	E.	0 10 2 0	0 9 17 951
Dec. 18.	4 29 31	5 8 26 25 28	8 18 56	12 54 25 162	16 13 39 6	33 769	6 565	3 480	0 406	44 219	W.	0 9 52 5	0 9 8 281
Dec. 19.	4 29 31	5 8 27 26 27	8 18 52	12 54 25 116	16 9 14 3	33 814	6 568	3 583	0 424	44 389	E.	0 10 3 5	0 9 19 111
Dec. 21.	4 29 31	5 8 29 28 50	8 18 27	12 54 25 021	16 0 22 3	33 909	6 573	3 788	0 437	44 727	W.	0 10 3 0	0 9 9 273
Dec. 22.	4 29 31	5 9 0 29 17	8 18 23	12 54 24 974	15 55 56 8	33 956	6 578	3 894	0 474	44 902	E.	0 10 4 0	0 9 18 836
Dec. 23.	4 29 31	6 9 1 30 13	8 18 20	12 54 24 930	15 51 31 4	34 100	6 581	3 904	0 489	45 164	E.	0 10 4 0	0 9 18 836
Dec. 27.	4 29 31	6 9 5 24 5	8 18 6	12 54 24 739	15 53 48 9	34 191	6 595	4 338	0 517	45 691	W.	0 9 56 0	0 9 10 309
07 Jan. 2.	4 29 31	7 9 11 40 0	8 17 49	12 54 24 456	15 7 20 1	34 474	6 611	4 981	0 629	46 695	W.	0 10 5 0	0 9 9 305
Jan. 3.	4 29 31	7 9 12 41 2	8 17 45	12 54 24 409	15 2 56 2	34 521	6 615	5 000	0 641	46 777	E.	0 10 5 0	0 9 18 223
Jan. 10.	4 29 31	8 9 19 48 04	8 17 38	12 54 24 079	14 32 21 8	34 851	6 623	5 549	0 705	47 728	E.	0 10 4 38	0 9 16 652

Results.

1806-7	Left Arc.	1806-7	Right Arc.	Mean.
Nov. 26.	0 9 16 293	28	0 9 10 212	Mean,.....
Nov. 30.	0 9 17 041	1.	0 9 10 360	* Refraction, + 0 131
Dec. 11.	0 9 19 017	4.	0 9 9 549	Micrometer, + 0 051
Dec. 17.	0 9 17 951	10.	0 9 8 693	Tube,..... - 0 004
Dec. 22.	0 9 18 086	18.	0 9 8 281	0 9 14 504
Dec. 23.	0 9 18 836	21.	0 9 9 273	Declination, - 12 54 58 950
Jan. 3.	0 9 18 223	27.	0 9 10 309	Latitude,.... 13 4 13 434
Jan. 10.	0 9 16 652	2.	0 9 9 305	
Mean, 0 9 19 025			0 9 9 029	
			0 9 19 023	
			0 9 14 52	

* For Refraction see par. 5 in paper.

$$\text{Corrected Refraction } R = \frac{\text{Tangt. } Z - 3r \times R' \times \frac{1}{A} \times 400}{h + 350}$$

The following example will shew the notation.

Example.

The mean observed zenith distance of *Regulus* by observations is $0^{\circ} 9' 14''.326 = Z$.

The refraction due to 45° altitude, as established by experiments, and very near the level of the sea is $50'' = R'.$ *

The mean altitude of barometer at the time of observing was 30.035 inches $= a$.

The general medium height of *Mercury* is $29.6 = A$.

The mean altitude of thermometer at the time of observation was $71^{\circ} = h$.

Rule.

$$\begin{array}{rcl} \text{Tangt. } Z = 0^{\circ} 9' 14''.326 \log. & 7.4293310 & \\ 3r = \frac{0.402 R' = 50' \log.}{9.1283010 \text{ N. N. } 0.134} & 1.6989700 & \end{array}$$

$$\begin{array}{r} 3 \\ \hline 3r = 0.402 \end{array}$$

$$\begin{array}{lcl} \left. \begin{array}{l} \text{Tangt. } Z - 3r = 0^{\circ} 9' 13''.924 \log. 7.4290229 \\ R' = 50' \log. 1.6989700 \\ \frac{a}{A} = \frac{30.035}{29.6} \log. 0.0062636 \\ 400 \log. 2.6088284 \\ \hline 1.7430849 \\ h + 350 = 421 \log. 2.6242821 \\ \hline \end{array} \right\} \begin{array}{l} a = 30.035 \log. 1.4775553 \\ A = 29.6 \log. 1.4712917 \\ \hline \log \text{ of } \frac{a}{A} \quad 0.0062636 \\ h \quad 71^{\circ} \\ \hline 350 \\ \hline h + 350 = 421 \end{array} \\ \text{Corrected Refract. } R = 0.131 \text{ N.N. } 9.1188028 \end{array}$$

* The quantity R' , which represents the refraction due to 45° altitude (where Rad. $= 1$) is given in BRADLEY'S Tables $= 57''$. But for obvious reasons I have preferred LE GENTIL'S quantity, as his experiments at *Pondicherry* appear to me unexceptionable.

which quantity $0''.131$ is entered on the IX. column of Table II. and so of the rest.

6. I WAS at first doubtful respecting the best mode of obtaining a very accurate mean latitude for the Observatory, and hesitated between making a selection of a certain set of stars whose declination was determined at *Greenwich* after the same method, and with the same instruments; or taking the whole mass of my observations without adverting to the catalogues either *English*, *French*, or *German*, from which I had taken the declinations.

7. HAD the whole of the stars given in Table III. been computed when I began writing this paper, I might have been induced to think the separate catalogue in Table II. unnecessary, since the two means only differ by $0''.361$. However, I was, at the time, determined by an opinion that the results of a few very accurate operations were always preferable to the mean of a great number of indifferent ones, and chose therefore twelve principal stars (six on each side of the zenith) the declinations of which are given in Dr. MASKELYNE's catalogue for January 1802. With these I constructed Table II. to which I particularly wish to call the attention of the reader, as every thing that I shall say hereafter is grounded on the mean latitude which is derived from it.

8. IN this catalogue, the maximum of deviation in the respective latitudes is only $4''.551$, and their gradual decrease as the stars become more southerly indicates that this difference is not solely to be attributed to inaccuracy in the observation; for it is to be observed that the regularity of this decrement (which is scarcely interrupted) cannot al-

TABLE II.

Shewing the Latitude for the Madras Observatory such as derived from 12 Principal Stars.

I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.	XII.	XIII.
Names and Characters of Stars.	Magnitudes.	Num. of Obs.	Interval during which observed.	Mean Declination from Greenwich Cal. for 1805.	Observed Zen. distances corrected for Aberr. Nat. and Solar Equations.	Mean height of Barometer dur. Observat.	Thermometer.	Refraction.	Corrected Zen. with distances.	Latitude.	Mean by Northern and Southern Stars.	Mean Latitude.
Arcturus, . . .	1	20	Feb. 6. Mar. 20.	20° 12' 14".496	7° 58' 630	29.975	75°	6".051	7° 58' 690	13° 4' 15".736		
Aldebaran, . . .	1	16	Oct. 30. Dec. 9.	16° 6' 23".830	3° 2' 7".348	29.983	77°	2".557	3° 2' 9".905	13° 8' 39"		
β Leonis, . . .	2	20	Jan. 2. Feb. 24.	15° 30' 48".544	2° 35' 31".288	30.019	74°	2".197	2° 35' 33".485	15° 0' 77"		
α Herculis, . . .	3	16	Mar. 27. Apr. 24.	14° 37' 27".091	1° 33' 10".870	29.942	81°	1".288	1° 33' 12".158	14° 5' 33"		
α Pegasi, . . .	2	16	Oct. 25. Nov. 14.	14° 9' 38".650	1° 5' 22".312	29.966	83°	0".902	1° 5' 23".214	14° 8' 36"		
γ Pegasi, . . .	2	12	Oct. 25. Nov. 14.	14° 6' 1".906	1° 1' 47".135	29.966	81°	0".856	1° 1' 47".991	13° 9' 15"	13° 4' 14".731	
Regulus, . . .	1	18	Nov. 28. Jan. 12.	12° 54' 58".930	0° 9' 14".396	30.035	71°	0".131	0° 9' 14".504	13° 4' 13".434		13° 4' 13".654.
α Ophiuchi, . . .	2	10	Mar. 15. Apr. 22.	12° 42' 50".910	0° 21' 22".362	29.993	84°	0".295	0° 21' 22".655	13° 5' 65"		
Altair, . . .	2	16	Apr. 28. Jan. 9.	8° 21' 53".530	4° 42' 15".821	29.862	85°	3".874	4° 42' 19".605	13° 2' 25"		
α Orionis, . . .	1	20	Nov. 7. Jan. 15.	7° 21' 36".670	5° 42' 29".526	30.035	74°	4".835	5° 42' 34".381	11° 0' 51"		
α Serpentis, . . .	2.3	12	Mar. 9. Apr. 9.	7° 2' 59".390	6° 1' 8".002	29.993	80°	5".043	6° 1' 13".045	12° 4' 35"		
Procyon, . . .	1.2	16	Nov. 8. Jan. 23.	5° 43' 0".010	7° 21' 5".592	30.035	73°	16".280	7° 21' 11".902	11° 31' 13"	4° 12'.587	

TABLE III.

Shewing the Latitudes for the Madras Observatory such as deduced from 52 Stars near the Zenith by 500 Observations.

I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.	XI.
Names and characters of Stars.	Magnitudes.	No. of Obs.	Period during which observed.	Mean Declin. January 1805.	Corrected Zenith distances Minus Refrac.	Refraction.	Corrected Zenith Distances.	Latitudes.	Corrected Declinations for Jan. 1805.	
γ Geminorum,	3	16	Feb. 19.	20° 50' 43"	7° 46' 18".373	6".536	7° 46' 24".909	15° 4' 18".091	20° 50' 38".343	4°.437
γ Leonis,	3	10	Dec. 21.	20 49 26	7 45 4.151	6.540	7 45 10.691	15.300	20 49 24.185	1.875
γ Arcturus, . .	3	20	Feb. 6.	20 12 14.42	7 7 53.639	6.051	7 7 58.690	15.736	20 12 12.194	3.255
γ Bootis,	3	6	May 10. and 27.	19 55 6	6 50 42.566	5.731	6 50 48.297	17.703	19 55 0.731	5.935
β Arietis,	3	10	Oct. 28.	19 51 2	6 46 42.181	5.679	6 46 47.860	14.140	19 51 1.294	0.705
γ Bootis,	3	8	Jan. 24.	19 52 58	6 13 30.041	5.332	6 18 35.373	22.627	19 22 48.907	8.032
δ Arietis,	4	12	Oct. 28.	18 58 30.95	5 54 32.869	5.010	5 54 37.879	13.071	18 58 51.313	6.309
δ Cancri,	4	18	Nov. 30.	18 51 47	5 47 26.541	4.913	5 47 31.454	15.546	18 51 44.888	2.112
α Sagittæ, . . .	4	6	April 5. and 20.	17 54 34	4 30 11.164	3.720	4 30 14.884	19.116	17 54 38.318	5.684
γ Geminorum, . .	3.4	6	March 5.	17 15 46	4 11 25.581	3.540	4 11 29.087	16.913	17 15 42.521	3.471
γ Leonis,	2.3	14	Dec. 2.	16 33 18	3 28 59.806	3.216	3 29 3.022	14.978	16 33 16.456	1.544
γ Serpentis, . .	3	8	Dec. 10.	16 29 40	3 25 26.001	2.994	3 25 28.995	11.005	16 29 42.480	2.423
Aldebaran, . . .	3	8	March 12.	16 18 35	3 14 11.483	2.703	3 14 14.188	20.812	16 18 27.708	7.258
β Leonis,	1	20	Oct. 30.	16 6 23	3 2 7.348	2.537	3 2 9.905	13.820	16 06 23.350	1.330
α Hercule,	3	20	Jan. 28.	15 39 45.28	2 35 31.228	2.197	2 35 33.485	13.077	15 39 46.919	1.000
α Pegasi,	3	12	Oct. 28.	15 8 49	2 4 34.103	1.748	2 4 35.851	13.140	15 8 49.986	1.000
α Hercule,	3	16	March 27.	14 37 27.09	1 33 10.870	1.288	1 33 12.158	14.933	14 37 25.592	1.288
α Pegasi,	2	16	Oct. 25.	14 9 38.05	1 5 22.312	0.902	1 5 23.214	14.886	14 9 36.048	1.402
γ Pegasi,	3	12	Oct. 25.	14 6 1.906	1 1 47.135	1.837	1 1 47.991	13.915	16 6 1.425	0.473
β Delphini, . . .	3	6	Oct. 24.	13 55 36	0 51 21.905	0.709	0 51 22.614	13.386	13 55 36.048	0.048
δ Orionis,	4.2	8	Jan. 14.	13 54 54	0 50 44.213	0.713	0 50 44.926	9.076	13 54 58.800	4.300
ζ Aquilæ,	3.4	4	April 28.	13 35 8	0 30 49.051	0.423	0 30 49.474	18.526	13 35 2.905	5.626
ϵ 2 Orionis, . . .	4.5	4	Feb. 19. and 26.	13 11 48	0 7 33.171	0.104	0 7 33.275	14.325	13 11 46.709	1.394
Mean Latitude from the whole. 13 4 13.293										Mean of *'s N. of Zen. 13 4 15.482

<i>Names of Stars.</i>	<i>Mag.</i>	<i>No. of obs.</i>	<i>Period during which obs.</i>	<i>Mea. Dec. 1805.</i>	<i>Corr. δ, d.</i>	<i>Refrac.</i>	<i>Cor. δ, dist.</i>	<i>Latitude.</i>	<i>Cor. Declin.</i>	<i>Difference</i>
β Regulus, ...	1	1	Nov. 28. Jan. 12.	12 ⁵⁴ 56 ⁵⁸ .93	0 ⁹ 14 ³⁶ .386	0.191	0 ⁹ 14 ⁵⁰ .504	13 ⁴ 13 ⁴ .434	12 ⁵⁴ 56 ⁵⁸ .930	0.000
α Orionis, ...	2	2	March 15. April 22.	12 ⁴² 50 ⁵⁰ .91	0 ²¹ 22 ³⁰ .362	0.293	0 ²¹ 22 ⁵⁵ .655	13.565	12 ⁴² 50 ⁵⁷ .779	- 0.131
β Cancri, ...	4	4	Nov. 10. Jan. 10.	13 ³⁶ 18 ⁰	0 ²⁷ 55 ⁰⁵ .057	0.395	0 ²⁷ 55 ⁴⁵ .452	13.452	12 ³⁶ 17 ⁰⁹ .092	- 0.018
α Cancri, ...	4	4	April 15. and 29.	12 ²¹ 48 ⁰	0 ⁴² 21 ¹⁶ .66	0.579	0 ⁴² 21 ⁷⁴ .5	9.745	12 ²¹ 51 ⁶⁹ .690	+ 3.689
α Cancri, ...	4	4	April 15. May 5.	12 ⁹ 28 ⁰	0 ⁵⁴ 46 ³⁵ .332	0.791	0 ⁵⁴ 47 ¹⁴ .143	15.143	12 ⁹ 26 ²⁰ .201	+ 1.709
α Cancri, ...	4	4	Jan. 13. March 4.	12 ⁰ 40	1 ³ 31 ⁵⁰ .500	0.867	1 ³ 32 ³⁸ .387	12.387	10 ⁴¹ 04 ¹⁷ .17	+ 1.047
α Cancri, ...	3	3	March 26. April 7.	11 ⁵⁵ 5	1 ⁹ 8 ⁶⁷ .678	0.938	1 ⁹ 9 ⁶³ .636	14.636	11 ⁵⁵ 3 ⁷⁹ .798	+ 1.902
α Cancri, ...	4	4	May 12. and 30.	11 ³⁶ 13	1 ²⁷ 57 ⁸⁰ .6	1.203	1 ²⁷ 59 ⁰⁰ .009	11.009	11 ³⁶ 14 ⁴⁵ .45	+ 2.425
α Cancri, ...	4	4	April 10. May 1.	11 ²⁶ 45	1 ³⁷ 23 ⁵⁹ .3	1.333	1 ³⁷ 24 ⁹⁸ .986	9.986	11 ²⁶ 48 ⁵⁰ .8	+ 3.508
α Cancri, ...	3	3	March 11. April 6.	11 ¹² 4	1 ⁵² 9 ²⁰ .3	1.561	1 ⁵² 10 ⁷⁶ .4	14.764	11 ¹² 2 ⁶⁷ .0	+ 1.330
α Cancri, ...	4	4	Dec. 1. Jan. 8.	10 ⁴⁶ 25	2 ¹⁷ 43 ⁹⁴ .0	1.961	2 ¹⁷ 45 ⁹⁰ .1	10.901	10 ⁴⁶ 27 ⁵³ .3	+ 2.533
α Cancri, ...	4	4	May 11. June 11.	10 ³⁹ 5	2 ²⁴ 51 ²² .8	2.147	2 ²⁴ 53 ²¹ .2	8.032	10 ³⁹ 20 ²² .2	+ 15.222
α Cancri, ...	2	2	March 11. Jan. 8.	10 ¹⁸ 28	2 ³⁴ 18 ⁸⁸ .6	2.335	2 ³⁴ 21 ⁰³ .5	4.035	10 ²⁹ 52 ⁴⁰ .1	+ 5.381
α Cancri, ...	4	4	Feb. 19. March 20.	10 ³ 57	3 ¹⁷ 27 ⁹⁷ .7	2.510	3 ¹⁷ 30 ⁷⁷ .7	3.597	10 ⁴ 0 ⁴⁹ .9	+ 3.049
α Cancri, ...	4	4	Nov. 19. Dec. 21.	9 ⁴⁶ 29	3 ⁴⁶ 59 ¹⁸ .7	3.392	4 ⁴ 52 ⁸⁴ .8	10.848	8 ⁵⁹ 20 ⁵⁶ .6	+ 2.586
α Cancri, ...	4	4	Oct. 28. Nov. 14.	8 ⁵⁹ 18	4 ⁴⁰ 48 ³⁹ .7	4.018	4 ⁴⁰ 52 ⁴¹ .5	12.415	8 ²³ 21 ⁰¹ .9	- 0.739
α Cancri, ...	4	4	Dec. 2. Jan. 9.	8 ²³ 20	4 ⁴² 15 ⁸³ .1	4.467	4 ⁴² 19 ⁶⁹ .5	13.225	8 ²¹ 53 ⁷⁷ .2	- 2.978
α Cancri, ...	4	4	April 28. Jan. 25.	7 ²⁷ 26	5 ²⁶ 45 ⁹⁴ .5	5.482	5 ²⁶ 50 ⁴¹ .2	16.412	7 ³⁷ 23 ⁰² .2	- 2.053
α Cancri, ...	4	4	May 12. and 25.	7 ²¹ 37	5 ⁴⁸ 29 ⁵⁶ .6	5.089	5 ⁴⁸ 20 ⁸⁸ .3	8.883	7 ⁵ 52 ⁵⁵ .1	+ 4.551
α Cancri, ...	4	4	Nov. 19. Jan. 21.	7 ⁵ 48	6 ¹ 8 ⁰⁰ .2	5.043	6 ¹ 13 ⁰⁴ .5	12.435	6 ⁵⁸ 36 ⁰⁵ .1	+ 1.949
α Cancri, ...	4	4	March 9. April 9.	6 ⁵⁸ 38	6 ⁵ 32 ³⁵ .9	5.024	6 ⁵ 37 ³⁸ .3	15.383	6 ⁹ 45 ²⁷ .6	+ 2.976
α Cancri, ...	4	4	May 1. June 5.	6 ⁹ 43	7 ²¹ 193	5.865	7 ²¹ 11 ⁸⁰ .2	11.812	5 ⁴³ 1 ⁶³ .2	+ 1.622
α Cancri, ...	2	2	Jan. 10. Feb. 18.	5 ⁴³ 0 ⁰¹	7 ²¹ 5 ⁵² .2	6.266				

Mean of Stars South of Zenith, 13 4 11.113

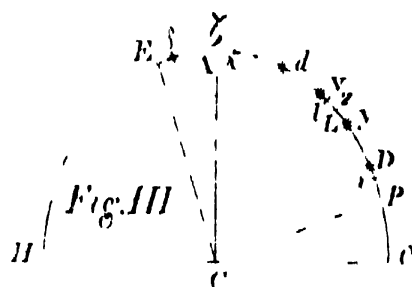
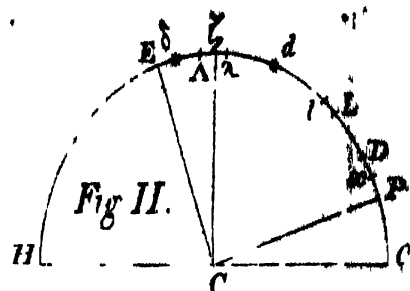
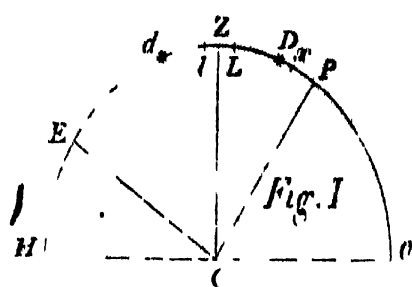
TABLE IV.

Shewing the Latitudes given by Stars as observed North or South of the Zenith.

Name of Places where observed.	Names and number of Stars observed by.	Latitudes by Stars North of the Zenith.	Latitudes by Stars South of the Zenith.	Excess of N.	Mean Latitudes.
Cortuga in the Northern Circars.	By 15 Stars North of Zenith, with Sextant, Mr. Topping.	16° 48' 42". 5	16° 48' 35". 7	6". 8	16° 48' 39"
Paughur in the Mysore.	ε Bootis, δ Leonis, β Leonis, ε Virginis, Regulus, α Leonis. Major LAMBTON.	14 6 20.312	14 6 17.919	2.393	14 6 19.165
Paudree in the Carnatic.	Aldebaran, α Orionis, Regulus. Major LAMBTON.	13 19 49.018	13 19 40.370	8.648	13 19 44.69
TABLE II.					
Observatory near Fort St. George.	Arcturus, Aldebaran, β Leonis, α Herculis, α Pegasi, γ Pegasi, Regulus, α Ophiuchi, Altair, α Orionis, α Serpentis, Procyon.	13 4 14.721	13 4 12.587	2.134	
	By 23 Stars N. of Zenith, with the Zenith Sector.	13 4 15.482	13 4 11.113	4.369	
	By 11 Observations of ☉ N. of Zenith, 9 Observations of ☉ S. of Zenith, Observations by Mr. GOLDSCHAW & Mr. TOPPING.	13 4 4.449	13 4 2.207	2.242	13 4 13.654
	Arcturus, δ Arietis, Aldebaran, Markab, β Delphini, Regulus, α Ophiuchi, Altair, α Orionis, α Serpentis, Z.S.	13 4 11.62	13 4 6.53	5.09	
Dodagoonta near Bangalore in the Mysore.	By 25 Stars, very near the Zenith N.	13 4 6.10	13 4 4.76	1.34	
	By 30 Stars South & very near the Zenith, Circular Inst.	13 4 6.45	13 4 4.87	1.58	
	By 25 Stars N. of Zenith, 26 Observations of ☉ N. of Zenith, 25 Stars S. of Zenith, 25 Stars S. of Zenith, with Sextant.	13 4 12.47	13 4 6.30	6.17	
	Arcturus, α Herculis, Markab, Z. Pegasi, α Ophiuchi, γ Aquilæ, Altair, α Serpentis, β Aquilæ, γ Herculis, α Sagittæ, γ Serpi. ε Bootis and β Delphini (second set by Major LAMBTON).	12 59 54.89	12 59 47.26	7.63	12 59 55.49
Trivandropuram in the Carnatic.	Aldebaran, Regulus, α Orionis.	11 44 50.55	11 44 41.45	9.50	11 44 47.78

TABLE V.
Zenith Distances and Latitudes by the Sun,
April and May 1807.

<i>Days on which observed.</i>	<i>Zenith dist. of ☉'s centre.</i>	<i>Corresponding Latitudes.</i>	<i>Mean of Lat. by Northern and Southern Z. distances.</i>	<i>Mean Lat.</i>
April 15.	3° 36' 49".849	13° 4' 4".949		
16.	3 15 19.065	4 3.965		
18.	2 32 35.999	4 7.619		
19.	2 11 52.124	4 3.324		
20.	1 51 0.725	3 59.525		
21.	1 30 26.776	4 1.376		
23.	0 49 45.564	3 59.564		
24.	0 29 41.305	3 58.004		
25.	0 9 56.739	4 2.339	13° 4' 3".207	13° 4' 3".328
	☉ North.			
26.	0 9 39.001	4 3.339		
27.	0 29 2.604	3 496		
28.	0 48 11.508	5.692		
30.	1 25 53.806	4.339		
May 3.	2 20 39.055	2.345		
5.	2 55 54.866	0.134		
8.	3 46 40.172	5.228		
9.	4 3 5.912	5.588		
11.	4 35 0.418	8.652		
12.	4 50 35.340	3.560		
13.	5 5 48.551	6.449	13 4 4.449	
			Dif. 2.242	



together be ascribed to chance; and it was this consideration which led me to examine whether I could not discover some law by which it was governed.

9. For this purpose I gathered all the observations which I could collect, and from as many different places in the *Peninsula* as I could, provided they were obtained in sufficient numbers at each place. These being arranged in the order of the declinations, and the mean results of northern and southern zenith distances being taken separately, I noticed invariably (though in unequal degrees) a small *excess* in the northern, and *defect* in the southern sets.

10. An abstract of these deviations is given in Table IV. and the reader will do well to refer to it in order to judge of the consistency of the preceding remark, and of the solidity of what I have further to say on the subject.

11. This exposition being sufficient to shew the tendency of observations taken north of the zenith to give *too great* a latitude, and the contrary of the southern ones, I shall now endeavour to account for this circumstance as follows.

12. LET Z (*Plate VI. Fig. 1*) be the true zenith of any place, $E D$, and $E d$, the declinations of any two stars, one north, the other south, and nearly at equal distances from the said zenith. By the present experiments, if we use the declination of D , the latitude will fall somewhere in L : but if we use the declination of d , then it will fall on the opposite side, somewhere in l . Therefore the sum of the zenith

distances $DL + l d$, will fall short of the differences of declinations ED , and $E d$ by the small arc $L l$.

13. LET now the zenith be altered into ζ (*Fig. 2*) so that d be now north of it, and let δ be the place of a third star, south of the zenith ζ . Then if we use the declination of d (which before gave us too low a latitude) it will now give it in λ ; and if we use that of δ it will fall in south of the true zenith: so that instead of having $ED - E\delta = \text{sum}$ of the four zenith distances, we have it (*Fig. 2*) $= DL + Ll + l d + d\lambda + \lambda\Delta + \Delta\delta$. That is, the four observed distances + the small arc $Ll + \lambda\Delta$. Therefore, if we suppose the declination ED to have been well determined, that of d is too low by the arc Ll , and that of δ by $Ll + \lambda\Delta$.

14. FOR example; let the true place of *Aldebaran* be at x , and its apparent place (affected by the error in the declination) be at D , *Regulus* at d , and α *Orionis* at δ ; then by the observations at *Paudree* and *Trivandaporam* we have

DL	$2^{\circ} 46' 33'' .682$	N	} of the respective zeniths.
ld	$0 24' 43'' .040$	S.	
$d\lambda$	$1 10' 9'' .980$	N.	
$\lambda\Delta$	$4 23' 4'' .810$	S.	

Sum, - - - 8 44 31 .452

Now the mean declination of *Aldebaran* being

Equal - - - - - $16^{\circ} 6' 23'' .73$

And α *Orionis* = $7 21 36 .61$

We have $ED - EA$ $8 44 47 .12$

$8 44 31 .45$

Diff. $Ll + \lambda\Delta$ = - - - - - $15 .55$

and in order to have separately the values of these quantities, we have at

Trivandrum

Latitude $E L$ by *Aldebaran* $13^{\circ} 19' 49'' .018$

$E l$ by *Regulus* $41 .340$

Difference $L l$ $7 .678$

At *Trivandapuram*,

Latitude $E \lambda$ by *Regulus* - $11^{\circ} 44' 49'' .329$

$E \Lambda$ by α *Orionis* $41 .678$

Difference $\lambda \Lambda$ $7 .879$

Hence $L l + \lambda \Lambda = 7''.678 + 7.879 = 15.557$ as before.

15. It is therefore evident, that taking the declination of *Aldebaran* to be correct, and the observations good, then the declination of α *Orionis* should be increased by $15''.557$. Again, if we revert to what I have said higher up (Para. 7)* it may be inferred, that these errors proceed from assigning originally too great a difference of polar distance between the extreme stars from which the mean latitude is deduced (as for example between *Arcturus*, and *Procyon*): hence the mean latitude, which is derived from both, will fall somewhat too low; both on account of the excess of this arc, and also of the error of polar distance of $P D - P \delta$!

16. It follows from this, that the successive small arcs of declination $Dy, yv, vd, d\delta$ (Fig. 3) will severally be too great, and this seems to be the case with the declinations of the twelve stars registered in Table II.

17. It is true that in the foregoing example, where I have compared the results given by *Aldebaran*, *Regulus* and α *Orionis*, I have selected an

* See also infra, Pa. 17.

extreme case; but it is likewise evident, from what appears in Table IV, that were the *mean* of any number of northern and southern stars, to be taken separately at any two places of different latitudes, and in the order here described, the deviation would tend the same way as in the above exposition; and this, it may be supposed, by a certain quantity, *thrown in from a distant zenith*, on account of refraction, which cannot be corrected here for the quantity Px , nor done away by that due to the small arcs Dy near the zeniths. Also that the latitude of ζ will fall too low by a certain quantity $(PD - Px) Dx + \frac{Ll + \lambda \Lambda}{n}$, where Dx is the whole error affecting the declination of D ; and the divisor n , will be in some proportion of the error affecting the whole arc $D\delta$ (always in excess) from the extremities of which the mean latitudes of Z and ζ were deduced.

18. WITH the mean latitude given in Table II. we can therefore be no otherwise satisfied than from the following consideration, which as far as it affects our latitude seems to reduce the error $Dx + \frac{Ll + \lambda \Lambda}{n}$, to a mere nothing.

19. *Regulus*, a star of the first magnitude, no doubt attentively observed from every part of *Europe*, owing to its being very near the ecliptic, and situated only 9 minutes and 14 seconds from the zenith of the *Madras* Observatory, gives a latitude differing only from the mean results in Table II. by $0''.22$. This, no doubt, will be admitted to be a strong indication, that its declination, such as laid down in the tables, is very accurate. *Regulus* may therefore, without inconvenience, be taken as a visible point in the heavens, from which to lay down the position of

the other stars, by this means the zenith distances applied to it will give results consistent both with the observations at Greenwich, and at Madras, and thus form a link by which the two zeniths may hereafter be connected.

20. For this reason, in computing the Xth column in Table III. I have adopted the following process:

I.

Declination of <i>Regulus</i> , - - -	12° 54' 58".930
Zenith distance of do. - - -	0 9 14.504
Z. D. of <i>Arcturus</i> N. - - -	7 7 58.690
Corrected declin. of <i>Arcturus</i> , 20	12 12 12.124 N.

II.

Zenith distance of <i>Regulus</i> , -	0 9 14.504
Zenith distance of <i>Procyon</i> , -	7 21 11.802
Difference, -	17 11 57.298
Declination of <i>Regulus</i> , - - -	12 54 58.930
Corrected declin. of <i>Procyon</i> , -	5 43 1.632

21. It is greatly to be regretted, that there are no instruments in the Madras Observatory, wherewith to take accurately great zenith distances; for corresponding observations of stars near the zenith of Greenwich and of Paris, would have afforded powerful means for correcting, after the same manner, the declinations of all stars in that extensive space of the heavens which divides the two Observatories.

ON THE SUN'S DECLINATION.

22. It is a fact deserving of notice, that the medium of 20 observa-

time of the sun, taken with the zenith sector, (Table V.) gives the latitude of the Observatory only $13^{\circ} 4' 13''.328$ which is less by $10''.326$ than that brought out by the stars in Table II.

23. THE great difficulty of observing the sun, when in the meridian in tropical climates, owing to the great tremor of the atmosphere at noon time, induced me not to consult it in laying down the latitude of this Observatory.

24. HOWEVER, on comparing the mean latitude in Table V. with the results of similar observations, formerly taken with the same instrument by Mr. GOLDINGHAM, (56 in number) I found that his latitude by the sun, namely, $13^{\circ} 4' 5''.66$, differed only by $2''.332$ from mine. There could therefore remain no doubt that the sun gave a lower latitude than the stars; and I was further confirmed in this opinion, on Major LAMBTON communicating to me his remark, that when observing the sun, in various parts of the *Peninsula*, his results were likewise in defect.

25. IN order to make a further trial of this, let us compute the exact time when the sun was precisely in the parallel of the *Madras Observatory*, and then (taking the difference of longitude between *Greenland* and this place to be well known) determine the sun's declination for that moment, from what it is given in the nautical almanac for two preceding, and two succeeding noons.

26. FOR this, taking the four zenith distances observed nearest and on each side of the zenith, and interpolating in the usual way,* we have

* The formula of which is $y = a + Px + Qx^{\frac{x-1}{2}} + Rx^{\frac{x-1}{2}} \frac{x-2}{3}$ &c. where x is to be found by resolving the equation,

April 24,	29° 41' S.	=	1781	+	=	a
25,	9 56 S.	=	596	+	=	b
26,	9 39 N.	=	579	-	=	c
27,	29 3 N.	=	1743	-	=	d

Hence:

$$\begin{array}{rcccc}
 a & b & c & d \\
 1781; & 596; & - & 579; & - & 1743 \\
 - & 1185; & - & 1175; & - & 1164 \\
 & + & 10; & + & 11 \\
 & & + & 1
 \end{array}$$

Therefore $a = 11781$; $P = -1185$; $Q = 10$; $\frac{2P}{Q} = Z = -237$.

Hence $X = -\frac{Z-1}{2} \pm \sqrt{\frac{Z-1}{2}^2 - \frac{2a}{Q}} = 1.50617$ or, 1 day 12^h 8^m 52^s.84. Therefore the sun was exactly in the parallel of the Observatory on the 25th of April at 12^h 8^m 52^s.84 P. M. *Madras* time, and taking the difference of longitude to be 80° 18' 30" E. which gives in time 5^h 21^m 14^s, then the sun was in the said parallel on the 25th of April at 6^h 47^m 38^s. *Greenwich* time:

27. Now by interpolating again for the sun's declination at that instant, we have by the ephemerides

April 24,	12° 38' 44"	=	45524	=	a
25,	12 58 3	=	46710	=	b
26,	13 18 4	=	47884	=	c
27,	13 37 25	=	49045	=	d

Hence:

$$\begin{array}{rcccc}
 a & b & c & d \\
 45524; & 46710; & 47884; & 49045 \\
 & 1186; & 1174; & 1161 \\
 & - & 12; & - & 13; \\
 & & - & 1;
 \end{array}$$

Therefore $a = 45584$; $P = .1186$; $Q = -.12$, and $x = \frac{61.587}{48}$; and $y = a + Px + Qx \cdot \frac{x-1}{2} = 13^{\circ} 4' 3''.159$, which differs only from the mean latitude by the sun (Table V.) by $0''.169$.

28. It is, I own, no easy matter to give a reason for so great a deviation. The difference between this position of the sun when in the parallel of the Observatory, and the latitude of that place as given by the stars, being $10''.326$, no error in the difference of longitude assumed between the *Greenwich* and *Madras* Observatories can account for it. For if we take $y = 13^{\circ} 4' 13''.654$ or $47053''.654$ (Table II.) then resolving the equation we have, $x = -\frac{2-1}{2} \pm \sqrt{\frac{(2-1)^2}{4} + \frac{2y-2.211}{Q}}$ 1.4128912 or 1 day $6^h 56^m 19^s.9$, which gives a difference of 8 minutes and 43 seconds of time for moving through $10''.326$ of a degree in declination. So that if we suppose the sun to be in the parallel given by the stars, the interval of time allowed for the difference of longitude between *Madras* and *Greenwich* must be diminished by that quantity, which is far beyond any uncertainty that may still subsist on that head.

29. AGAIN; as to the time of apparent noon at *Madras*, the sun's transit was always observed with the fixed transit instrument, whilst I was observing it with the zenith sector; and these contemporary observations agreed always to a second of time. There can therefore be but little irregularity to apprehend from this element, and we are compelled, though under equal objections and difficulties, to ascribe the error to the declination either as assigned to the sun in the ephemerides, or to the stars in the catalogue for 1802; and I believe the former are the most likely to create suspicion.

90. WHERE great talents are combined with the most perfect instruments and assiduous practice, the cause can only be ascribed to that important correction on which we are still so very uncertain: and on this I shall venture an opinion, not altogether unsupported by experiments; * which is, that the declination of the sun being deduced from observations taken *at noon*, and that of the stars at *night time*, the effects of refraction at these different periods may possibly vary materially, and what is allowed for zenith distances of the stars, be too much for zenith distances of the sun; a surmise which explains at once why the sun, in the present instance, gives a lower latitude than the stars. This strongly suggests the expediency of further experiments for ascertaining a point, which, if established, would be highly conducive to important discoveries, in an interesting but imperfectly known branch of natural philosophy.

JOHN WARREN.

OBSERVATORY, near Fort St. }
George, 1st of March, 1808. }

* See Asiatic Researches Volume IX. Article 1st, Page 13, on experiments on terrestrial refraction, where the refraction at night was something more than double what it was in the day time, owing (it is supposed) to the increased moisture of the atmosphere.

IX.

TRANSLATIONS of two LETTERS of NADIR SHAH, with INTRODUCTORY OBSERVATIONS in a LETTER to the PRESIDENT.

BY BRIGADIER GENERAL JOHN MALCOLM.

TO HENRY COLEBROOKE, Esq.

President of the Asiatic Society.

MY DEAR SIR,

IN the course of researches into the history of *Persia*, my attention was particularly drawn to a collection of letters, and original state papers, of NADIR SHAH, published after his decease by his favorite secretary MÍRZA MEHEDÍ. This collection is held in the highest esteem in *Persia*, not only from the light it throws upon the history of that nation but from the style in which it is written, and which is considered to be the best model for those who desire to attain excellence in this branch of writing.

I HAVE the pleasure to transmit, for the consideration of the Asiatic Society, translations of two of these letters which appear to be strongly illustrative of the character of NADIR SHAH, and the history of the period at which they were written, and which may perhaps be deemed on that account not unworthy of a place in the Society's Researches.

THE first is addressed to MUHAMMED ^ÁALÍ KHAN, *Beglerbeg** of

* Governor of *Persia* proper.

Fars, and must from its tenor have been written early in the year 1731, a few months previous to the dethronement of SHAH TAMASP, which took place in the month of August of that year. NADIR SHAH published, at the period at which he wrote this letter, a proclamation or manifesto addressed to the inhabitants of *Persia*, in which, after stating his own successes against the *Afghans* and the other enemies of his country, and the evils which appeared likely to arise from the shameful peace which had been concluded with the *Turks*, he announces his intention of marching after the feast of *Nau Rôz* (which occurred that year on the 22d of *Ramzan* or 10th of March) and of not only obliging the *Turks* to consent to more just terms, but of depriving of dignity and power, and considering as infidels, all those who should oppose his intentions. This manifesto, as well as his letter to the *Beglerbeg* of *Fars*, sufficiently prove, that his designs were at that moment more directed against his own sovereign than that of *Constantinople*.

THERE is no epoch in the life of NADIR SHAH at which he acted with more consummate art and policy, than upon this occasion. The crown of *Persia* was completely within his grasp. But he appears to have considered it as indispensable to have his right universally acknowledged by his countrymen before he seized it. He had within a period of thirteen years risen from obscurity to unrivalled pre-eminence in the service of his weak monarch; and, by his wonderful valor and conduct, had not only rescued his country from the *Afghans*, the *Turks* and the *Russians*, who, taking advantage of the decline of the *Sofaviyah* dynasty and consequent dissensions of the nobles of the empire, had made themselves masters of its richest cities and finest prov-

vinces; but he had revived the military spirit of the *Persians*, and roused a nation sunk in sloth and luxury, to great and successful exertion. But neither this success, the imbecility of SHAH TAMASP, nor a reliance upon his own fame and strength, could induce him to take the last step of usurpation, until he had by his arts excited a complete contempt in the minds of his countrymen for their reigning sovereign, and a pride in his glory, that was likely to make his elevation seem more the accomplishment of their wishes than of his ambition. The great ability with which he labored to effect this object, is admirably shown in his letter to MUHAMMED ALI KHAN. He commences by stating his victories over the *Afghans*, whom he had not only completely expelled from the empire, but pursued into their own territories. He next exposes the impolitic and humiliating conditions of the treaty which the king had concluded with the *Turkish* government; and, on the ground of its bringing disgrace on *Persia*, asserts his right and intention, as the successful champion of the independence of his country, to abrogate the ignominious engagement; and, while he flatters the national spirit of the *Persians* by anticipating success against their antient rivals the *Turks*, he endeavors to enflame all their bigotry by giving the color of religion to the cause which he has undertaken; and calls upon them, with the well feigned zeal of an enthusiast, to fight for the preservation and existence of the holy sect of *Shiah*, a schism which, as appears from his whole life, he always considered to be a heresy, and which it was the first and last object of his reign to eradicate and destroy: and, to make the effect of this letter complete, he concludes it with the usual declaration of all *Muhammedan* leaders who have made religion the pretext of

war, that he should consider and punish as infidels all those that refused their concurrence and aid in the sacred cause to which he professed himself devoted.

THE second letter is from *Delhi*, and must have been written immediately after the arrival of NADIR SHAH in that city, in the month of February 1738. It commences with a clear statement of the causes of his invasion of *Hindustan*; which is followed by a concise relation of his military operations, and a particular account of the celebrated battle of *Karnál*, in which he defeated the emperor of *India*. The account of occurrences before the action, the action itself, the subsequent visit which NADIR received from MUHAMMED SHAH, and his resolution to replace that monarch upon the throne of his ancestors, are stated with equal perspicuity and force, and the whole of this letter is written in a less inflated style than any oriental composition of a similar nature which has fallen under my observation. It records events of almost unparalleled magnitude, and the expression is (as far as I can judge) never more warm than what the subject justifies, and indeed requires.

THESE letters are perhaps calculated to give the reader a more favorable impression of the character of NADIR SHAH, than any thing before published relating to that great and successful conqueror; who is chiefly known in *Europe* by the report of his tyranny and cruelties, and above all by the massacre of *Delhi*, which reached *European* narrators through the exaggerated statements of the surviving inhabitants of that unfortunate city. It is far from my intention to trouble you with what the *Persian* advocates of NADIR SHAH state in vindication of his conduct upon that memorable occasion; nor do I mean to enter in this place into

any inquiry regarding the character and actions of this extraordinary man; but you will, I am assured, forgive me, if I offer some observations on the manner in which the history of NADIR SHAH and of several other *Asiatic* princes of eminence have been given by *European* writers.

IN describing eastern despots, there has often appeared to me a stronger desire to satisfy the public of the author's attachment to freedom and his abhorrence of tyranny, and despotic power, under every shape, than to give a clear and just view of those characters whose history was the immediate object of his labors. This usage may no doubt, in some points of view, appear laudable. It may have a tendency to impress those who peruse the work with a still greater love of the first of all human blessings, rational liberty. But others, who look to a volume of *Asiatic* history with no other desire but that of obtaining historical truth, and a correct knowledge of the social and political state of the nation that is described, will be disposed to regret that there was any prejudice on the mind of an author or translator, that gave him a bias unfavorable to the gratification of their hopes. They will wish, that he had looked upon the political world with more toleration; and, though they may not censure his warm admiration of the government of his own country, they will lament the existence of a feeling which was adverse to an impartial consideration of events illustrative of the general history of the human mind, and which has led him to stamp with general and unqualified reprobation rulers, who, however low their pretensions may be rated, if tried by the standard of countries towards whom that over which they reigned had no one point of affinity, must have stood high in the scale, if measured by that more

applicable principle, which takes as its foundation, the actual state of the community in which such characters were born, the means which they possessed, and the actions which they achieved; and, on this fair and just ground, pronounces with truth and discernment, on the right they had, from their qualities and achievements, to that pre-eminence which they attained.

If such an author were to write the history of NADIR SHAH, he would probably see something more than a mere usurper and tyrant in the man, who, born in a low rank of life, at a period when his country was overrun by foreign invaders, raised himself by the force of his own genius and courage to the highest military rank; attacked, defeated, and expelled every enemy from *Persia*; and afterwards, with the universal consent of his countrymen, seized the sceptre which his valor had saved, and which a weaker hand could not have wielded. Such an historian, after dwelling with pleasure if not enthusiasm, on the early events of his life, would accompany NADIR with satisfaction in his war upon those barbarous *Afghan* tribes, who for a series of years had committed the most horrid ravages in *Persia*; and though it would be impossible to commend the motives that led that monarch to attack the Emperor of *India*, the extraordinary valor and conduct which he displays in that enterprise, the exercise he gave by it to that military spirit which he had with such difficulty rekindled among his countrymen, and the magnanimity with which he restored the crown (which he had conquered) to the weak representative of the illustrious house of *Timur*, might, without offence to truth, be stated by such a writer in mitigation

of that insatiable desire of glory which prompted the enterprise, and of those excesses by which it was attended.

THE actions of NADIR SHAH, until the period of his return from *India*, are a theme of constant praise among his countrymen. Of the remainder of his life they say, that, though it was not unmarked by great deeds, it was too evident that he had become intoxicated with success, and no longer acted under the guidance of reason; and all *Persian* authorities agree, that, after he had in a paroxysm of rage, or rather madness, put out the eyes of his eldest son REZA KULI MIRZA, he became altogether insane. But neither this act of atrocity, nor the other cruelties which NADIR committed towards the close of his reign, have eradicated from the minds of his countrymen the sentiments of veneration which they entertain for his memory, as the deliverer of his country from its numerous, cruel and insolent enemies.

I MUST trust to your indulgence to excuse the length of this letter. If the accompanying translations are deemed worthy of being inserted in the transactions of the Asiatic Society, I hope to be able to forward hereafter others of a similar kind.

I am, My Dear Sir,

with sincere respect and esteem,

Yours faithfully,

JOHN MALCOLM.

31st October, 1803.

LETTER I.

(Written before NADIR SHAH ascended the throne,) addressed to MUHAMMED ALI KHAN, Beglerbeg of Fars; and giving an account of the conquest of Herat.

TO the highest of the exalted in station, the Chief of the great Nobles MUHAMMED ALI KHAN, these happy tidings be conveyed.

AIDED by the bounty of an all powerful Creator, and the happy auspices of the house of HANDEK* and the twelve Holy Imams† (on whom be eternal mercy,) with my crescent-formed and all sabduting scimitar, which in glory resembles the recent moon; and with my powerful and victorious army, and soldiers of propitious destiny, who are those sent from Heaven, ‡ I have, under the influence of good fortune, surpassed all others in the capture of fortresses and cities.

AT this happy and auspicious period, the host of *Afghans* of the tribe of ABDALLI, who fled from the edge of the conquering swords of my dragon-like warriors, retired, as a spider within its web, ‡ into the fort of Herat. Their hearts were distracted with fear, and the pillars of patience and fortitude, that had supported their resolution, were cast

* ALI Here the tribe of *Shiabs* are meant, who are supposed to be under ALI's protection, and in fact part of his family

† Sentences marked by italics, are passages from the *Koran*, of which I have concisely rendered the meaning.

‡ From the *Koran* The passage literally signifies "like unto the spider that maketh himself a house." But the weakest of all houses surely is the spider's.

TRANSLATIONS OF TWO LETTERS

Down. Reduced to distress by the complicated evils of famine and of the sword, they implored mercy; and "as clemency is enjoined to the powerful," I permitted them to evacuate the fort; and have sent (with a view to disperse them) sixty thousand of this tribe with their families, who were reduced to great misery, to the city of *Khar Shahr* in the province of *Khorasan*. By the favor and blessing of that omnipotent being, by whom I have been protected, the fort of *Herat* is in my possession; and the whole of the tribe of *Afghans*, as also of the *Ghalyaks* || of *Candahar*, who were in the bonds of alliance with them, have submitted; and have placed upon their necks the collar of obedience.

In the midst of these actions, by which the whole country from *Herat* to *Candahar* has been completely subdued, and the disturbers of tranquillity on the borders of *Khorasan* exemplarily punished; I learn by a letter from MUHAMMED REZA KHAN, who was sent ambassador to the court of *Rûm*, § that he has concluded a treaty with the king, by which it is agreed that the *Turkish* empire shall possess the territory on the other bank of the river *Aras*; and the *Persian*, all upon this: but no arrangement appears to have been made for the liberation of the prisoners of the sect of *Alî* who are confined in the *Turkish* dominions.

It is an incontestable truth, that the existence of humble persons, like us, who, from the favor of a divine providence, have obtained rank and pre-eminence over others, is for no other purpose than that we should be

|| A particular tribe of *Afghans*.
§ *Constantinople*.

the friends of the sect of *Shiaks*, that we should relieve the distress and dispel the grief of the poor and afflicted; ("for to protect the ruled is the duty of the ruler.") That we should combat the enemies of the weak, and eradicate the distemper of sedition from the body of the state: not that (deaf to the voice of the helpless and unmindful of those that are prisoners) we should break such sacred engagements, to conciliate the approbation and yield to the power of a proud enemy.

By the great and powerful God, this day is big with ruin to their enemies and with joy to the sect of *Shiaks*, the discomfiture of the evil minded is the glory and exaltation of the followers of ALÍ. *When the avenger is at hand the wicked tremble and are appalled. Their eyes roll wildly like one in the agonies of death. Let the danger pass over, and it is forgotten. They revile and mock with their tongues.*

THIS is a just description of the *Turkish* tribe. Why should we listen to more prevarications? Or why confine ourselves to the bank of the *Aras**, when it is manifest, that the peace, which has been concluded, is contrary to the will of God and irreconcilable to the wisdom or dignity of imperial greatness.

I HAVE stated to the minister of the exalted prince, that such a peace cannot be permanent, and that I conclude the mission of an ambassador to have been an act of compulsion, as I cannot believe, that the prince would, under other circumstances, have consented to such a degradation of his dignity. But at all events, as offerings are continually made in the palaces of the lords of the faithful, and the holy men with

broken hearts are praying to their divine creator for the release of the *Musulman* prisoners; it was my determination, after receiving leave from the holy prince of regions * *ALÍ BEN MAUSA REZA* (on whom be eternal blessings) to march on the second day after the feast of *Feter†* towards the disputed quarter, aided by the divine power, and accompanied by an army raging like the troubled ocean.

V E R S E.

I shall overflow my banks, and fly like an impatient lover to his mistress;
Like a torrent, will I rush, with my breast ever on the earth.

HAFIZ! if thy footsteps desire to gain, by the true path, the holy house,
Carry along with thee the virtue of the exalted of *Najef*.

I HAVE represented also, that I have sent the high in dignity, *MAHSUM ALÍ BEG GERAILÍ*, ambassador to the court of *Rúm*, and that he is attended by a respectable escort; and that he is fully acquainted with my wishes and sentiments.

You will no doubt be rejoiced to hear, that, as it was to be hoped from the goodness of God, this peace with the *Turks* is not likely to endure; and you may rest in expectation of my approach. For by the blessing of the most high, I will advance immediately, with an army elated with success, skilled in sieges, numerous as emmets, valiant as lions; and combining with the vigor of youth the prudence of age. I will attend on the exalted prince, and then proceed towards the *Turkish* frontier.

* One of the twelve *Imams*, who died at *Meshed* in *Khorasan*, where he is buried.

† This feast happens at the conclusion of the month of *Ramzan*.

V E R S E.

Let the cup-bearer tell our enemy, the worshipper of fire,
To cover his head with dust;
For the water, that had departed, is returned into its channel.

SUCH of the tribe of *Shiahs*, as are backward on this great occasion, and are reconciled to this shameful peace, should be expelled from the faithful seat; and for ever counted among its enemies. To slaughter them will be meritorious; to permit their existence, impious.

" I have heard, that, during the reign of *MUTASIM*,
" A woman of *Ajim* was taken by the foe :
" Her eyes became channels for torrents of blood.
" She thus complained of her wretched state.
" Oh *MUTASIM*! why art thou supine? I call for justice!
" Thy subject is a prisoner in the hands of thine enemy.
" Thou art the flame in the lamp of the country.
" On thee depends the shame or glory of the nation.
" Thou art the protector of the poor and wretched :
" All their children are the children of their sovereign !
" Her masters, astonished at these exclamations,
" In rage struck her on the face.
" And said, " now let you march *MUTASIM*,
" With all the renowned heroes of *Persia*,
" Collect an innumerable army,
" And come, if they choose, to thy rescue."
" This speech soon reached the great *MUTASIM*,
" Who immediately published throughout *Persia*,
" That all, who pretended to the name of men,
" Should instantly assemble in arms.
" When the monarch had completed his mighty preparations,
" He soon heaped destruction on the heads of his enemies.*
" To release one prisoner from the hand of the foe,

* This story is related by historians, of *MUTASIM*, the son of *HA'RUN AL RA'SHID*, and eighth *Khalif* of the house of *Abbas*. *D'Herbelot Bibl. Or.* 639.

TRANSLATIONS OF TWO LETTERS

- " If an incomparable army were assembled,
 " At this moment, when numbers of the *Shiabs* of *Persia*
 " Are prisoners in the hand of cruel men,
 " And, with their lamentable cries uttered morn and eve,
 " Have rendered dark and gloomy the azure sky;
 " It is acknowledged by the tribe of *Shiabs*,
 " That the king† of *Khorasan*, the *Imam* of the age,
 " Is not considered by the men of *Persia*
 " As less honorable, nor of lesser fame, than *MUTASIM*!
 " Then, by the mercy and greatness of the creator,
 " Victory is still declared to these soldiers.
 " Under the auspices of the most merciful of the world,
 " I have taken ample vengeance on the *Afghans*.
 " Aided by the fortune of the lord of *Khorasan*,
 " I have been revenged on the whole tribe of the *Afghans*,
 " There remains not in this quarter, at this period,
 " Aught of that tribe but their name.
 " In this war great actions have been fought.
 " The *Kezel-bashes** became each a sharp pointed thorn,
 " From the slaughter that has been made, and the blood that has been shed,
 " Our high polished scimitars have received a purple stain,
 " I have taken from the worthless foe,
 " With my sword, the region from *Herat* to *Candahar*!
 " By the sacred temple of the lord† of *Neyef*
 " We will turn with vehemence to that quarter;
 " We will perform a pilgrimage to that threshold;
 " And we will afford protection to our prisoners;
 " We will take ample vengeance of the *Turks*.
 " We will punish‡ all our foes.
 " And in this war, whoever continues inactive,
 " Or from baseness remains in pretended ignorance,
 " Both his property and his blood are lawful prize.
 " He is to be considered out of the pale of the true faith."

† ALI MAUSA REZA, the seventh *Imam*, buried at *Meshed*.

* *Persians*; literally *Redheads*, a name given to them, from the circumstance of *SHAH ISMAIL* having directed all true followers of the sect of *Shiab* to wear red caps.

† ALI, the son in law of the prophet who is buried at *Neyef*.

‡ Literally, *furbish the garments*.

MOST Noble Lord, if the state of the province of *Fars* will permit, lose not a moment in repairing to the court of the most exalted prince at *Isfahan*; and represent to him that, as the peace which has been concluded will benefit no person whatsoever, and can in no light be viewed as proper or reputable, it neither meets the approbation of the nobles nor the commonalty of the empire.

BUT, if you should be prevented from moving to the capital, owing to the dispute with the *Arabs* not being adjusted, let me be instantly informed. If you are able to quell these troubles, it is well. But, if you require aid, make me acquainted; and a detachment of my victorious army shall march to your support.

KEEP me regularly informed of the news of your quarter.

LETTER II.

From *NADIR SHAH*, to his son *KULI MİRZA*, giving an account of the conquest of *Delhi*,

TO the exalted and glorious son of our wishes the valiant *RIZA KULI MİRZA*, who is our vicegerent in *Irán*, the seat of our empire; our most beloved, the pre-eminent in royal rank, allied to us in dignity:—be these glorious commands known.

AGREEABLY to our former communications, after the defeat of the *Afghan* prince, *ASHREF ALI MIRDAN KHAN* was appointed our ambassador to the court of *Hindustan* for the purpose of representing to

that court, that as the turbulent *Afghans* of *Candahar* and its neighbouring provinces were to be considered equal enemies to both states, it would be advisable to appoint an army from *Hindustan*, to occupy the passes and prevent the retreat of the marauders. The emperor MUHAMMED SHAH gave a ready assent, and concluded a treaty to the proposed effect. After the return of our ambassador, we sent MUHAMMED ALI' KHAN to the court of the *Indian* emperor to repeat our instances on this subject, and MUHAMMED SHAH confirmed his former engagement.

AFTER our glorious and victorious standards returned to *Candahar*, we understood from our conquering generals employed with a part of our force in the reduction of the *Afghans* of *Kallat* and *Ghizni*, that MUHAMMED SHAH had in no respect fulfilled his engagements; and that no appearance of an *Indian* army had been seen in that quarter. This intelligence induced us to send with the utmost expedition, MUHAMMED KHAN TURKOMAN to the court of *Delhi* to remind the Emperor of his promises; but that sovereign and his ministers, in detection of their former engagements, treated the subject with neglect, omitted answering our letter, and even put restraint on the person of our ambassador.

IN this situation we were impelled to march against the *Afghans* of *Ghizni* and *Cabul*, and after punishing the refractory mountaineers in that quarter, as we considered the neglect and contempt with which MUHAMMED SHAH had behaved, and his conduct to our ambassador irreconcilable with friendship, we marched towards *Sháhjehánábád*.

Of our success in reducing the provinces of *Peshawir* and taking possession of *Lahore*, the former seat of empire, our beloved son has already been informed. We marched from that city the last day of *Shawwal*, and on Friday the 10th of *Zilkadd* reached *Ambala*, forty farsakhs from *Shahjahanabad*. We here learnt, that MUHAMMED SHAH had collected from *Hindustan* and the *Deekin* a numerous force, and accompanied by all his nobles, by an army of three hundred thousand men, three hundred pieces of cannon, three or four hundred elephants, and other equipments in proportion, had marched from *Delhi* and arrived at *Panispet*, a village twenty farsakhs from *Ambala*. We immediately directed the superfluous and heavy baggage of our conquering army to be left at *Ambala*, and advanced to meet the enemy. MUHAMMED SHAH also left *Panispet* and marched to *Carnal*, which is twenty-five farsakhs from *Delhi*.

In the course of our march we detached a force of five or six thousand men in advance, who had orders to observe the appearance, numbers and order of MUHAMMED SHAH's army. This body, when about ~~two~~ farsakhs from *Carnal*, fell in with the advance of the *Hindustani* army, which amounted to twelve thousand men: these they attacked and totally routed; presenting us with their general and many others, whom they made prisoners.

This signal defeat put a stop to MUHAMMED SHAH's further advance. He halted at *Carnal* and surrounded his army with a trench: he also constructed ramparts and batteries on which he placed his cannon.

WE had sent a detachment to march to the east of MUHAMMED SHAH's camp and post themselves on the road that led to *Delhi*; this party received accounts on the night of Tuesday the 15th, that SAADET KHAN, known by his title of *Burhàn ul Mulk*, and one of the chief nobles of the empire had reached *Malabat* accompanied by an army of 30,000 men, a train of artillery, and a number of elephants, and intended forcing a junction with MUHAMMED SHAH.

WITH a view of intercepting this force, we marched our army, two hours before day break, to the east of *Carnál*, and occupied the road between that village and *Pámpet*. This movement, we hoped, would force MUHAMMED SHAH from his entrenchments. About an hour and a half after day light we had passed *Carnál*, and gained the east side of the *Hindustáni* camp, when the advance guard made prisoners some stragglers of SAADET KHAN's party, from whose information we learnt, that that general had succeeded in his design of forming a junction with the emperor; in whose camp he had arrived at ten o'clock the preceding night.

ON this intelligence we were pleased to order our royal tents to be pitched on the ground which we then occupied, opposite to the camp of MUHAMMED SHAH, from whom we were distant about one *farisák*.

As the junction of SAADET KHAN had been the cause of MUHAMMED SHAH's delays, he conceived on that event his appointments to be complete; and, leaving two thirds of his cannon for the protection of his camp, he advanced with a great part of his army, a third of his artillery, and a number of his elephants, at twelve o'clock the same day,

half a farsakh in the direction of our royal army; and drew up his troops in order of battle. Placing himself in the centre of the advanced lines, he stationed the remainder of his troops in the rear as a support. Their numbers were incredible. They occupied, as close as they could be drawn up in depth, from the front line to the entrenched camp, a distance of half a farsakh; and their front was of equal extent. The ground was every where dark with their numbers, and to judge from appearance, we should suppose they were ten or twelve times more numerous than the army of the *Abdal Gardoghly*.

We, whose only wishes were for such a day, after appointing guards for our camp and invoking the support of a bountiful creator, mounted and advanced to give battle.

For two complete hours the battle raged with violence, and a heavy fire from cannon and musquetry was kept up. After that, by the aid of the Almighty, our lion-hunting heroes broke the enemy's line, and chased them from the field of action, dispersing them in every direction.

SAADAT KHAN mounted on his state elephant, his nephew NISHA MUHAMMED KHAN and other relations, fell prisoners into our hands. SAMSA'M ALI KHAN DAURAN AMIR UL OMRA BAHADUR, the first minister of the empire, was wounded. One of his sons, with his brother MUZEFER KHAN, was slain; and another of his sons, MIR AA'SH'UR, was taken prisoner. He himself died the following day of his wounds.

WASILI KHAN, the commander of the emperor's body guard, SHAD'AB KHAN, AMIR KULI KHAN, ALI MUHAMMED KHAN, MIR

HUSEN KHAN, KHA'JA' ASHRES KHAN, AM-YAR KHAN, A'ADIN BEG KHAN, SHAH'D AD KHAN Afghan, AHMED ALI KHAN, RAZAH RAI KHAN, commander of the artillery, as also SHIA KHAN'S, with about three hundred other nobles and leaders, of whom fifteen were commanders of seven thousand, of four and of three thousand, were slain.

MUH'AMMED SHAH, with NIZAM UL MULK, ruler of the seven provinces of the *Dec'hin*, and a chief noble of the empire, KAMER UL DIN KHAN, chief vizier, and some other nobles of less note, protected by a hovering party which had been left, made good their retreat within the entrenchments, and escaped the shock of our victorious swords.

THIS action lasted two hours; and for two hours and a half more were our conquering soldiers engaged in pursuit. When one hour of the day remained, the field was entirely cleared of the enemy; and as the entrenchments of their camp were strong, and the fortifications formidable, we would not permit our army to assault it.

AN immense treasure, a number of grand elephants, the artillery of the emperor, and great spoils of every description, were the reward of our victory. Upwards of twenty thousand of the enemy were slain on the field of battle, and a much greater number were made prisoners.

IMMEDIATELY after this action, we surrounded the emperor's camp, and took measures to prevent all communication with the adjacent country, preparing at the same time our cannon and mortars to level with the ground the fortifications which had been erected.

As the utmost confusion reigned in the imperial camp; and all discipline was abandoned, the emperor, compelled by irresistible necessity, after the lapse of one day, sent NIZAM UL-MULK, on Thursday the 17th, to our royal camp; and the day following MUHAMMED SHAH himself, attended by his nobles, came to our heaven-like presence, in an afflicted state.

WHEN the emperor was approaching, as we are ourselves of a *Turkoman* family, and MUHAMMED SHAH is a *Turkoman*; and the lineal descendant of the noble house of GAURGA'NI; we sent our dear son NASIR ALI KHAN beyond the bounds of our camp to meet him. The emperor entered our tents, and we delivered over to him the signet of our empire. He remained that day a guest in our royal tent.

CONSIDERING our affinity as *Turkomans*, and also reflecting on the favors and honors that befitted the dignity and majesty of a king of kings; we bestowed such upon the emperor; and ordered his royal pavilions, his family, and his nobles, to be preserved; and we have established him in a manner equal to his great dignity.

AT this time, the Emperor with his family and all the lords of *Hindustan* who marched from camp, are arrived at *Dehli*: and on Thursday the 29th of *Zilkâd*, we moved our glorious standard toward that capital.

IT is our royal intention, from the consideration of the high birth of MUHAMMED SHAH, of his descent from the house of GAURGA'NI, and of his affinity to us as a *Turkoman*, to fix him on the throne of empire, and to place the crown of royalty upon his head.

PRAISE be to God, glory to the most high, who has granted us the power to perform such an action! For this great grace which we have received from the Almighty, we must ever remain grateful.

God has made the seven great seas like unto the vapour of the desert, beneath our glorious and conquering footsteps and those of our faithful and victorious heroes. He has made, in our victorious mind, the thrones of kings, and the deep ocean of earthly glory more despicable than the light bubble that floats on the surface of the wave; and no doubt his extraordinary mercy, which he has now shown, will be evident to all mankind.

As we have taken possession of a great number of cannon, we send 20,000 *Moghals* of *Iran* and *Turan*, with a detachment from our own conquering army, and a body of artillery with some large elephants, whom we have directed to march to *Cabul*. No doubt our sons will inform us of the affairs of that quarter.

AFTER the arrival of your letter, we will either order the detachment which we have sent, to proceed to *Balkh* or to go to *Herat*.

We have appointed the high in dignity *AA'SM'UR KHAN* to march to *Balkh*, after the *Nau róz*, (22d March) which he no doubt will do.

CONSIDER our glorious victory as derived from the bounty of the creator, and as an event of fortune beyond all calculation. Make copies of this our royal mandate and disperse them over our empire, that the well wishers of our throne may be happy and rejoice, and our secret enemies be dejected and confounded. Be you constantly employed in

adorned and arranged your government; placing your hopes in the favor of the most high, so that by the blessing of God, all those, whether near or distant, that are not reconciled to our glorious state, and are brooding mischief, may be caught in their own snares; and all real friends, who are under our dominion, may attain their wishes, and prosper under the auspices of our munificent government.

Dated 29th Zilkâd, 1115 Hejira,
Shahjehanabad or Dehli.

END OF THE TENTH VOLUME.



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Errata.

Page 5, line 2, and Page 26, line 9, for *stopped with a square board*—read, *excavated to a point*.—Page 42, line 2, instead of *persuaded*—read, *pursued*.—The Appendix, mentioned at Page 91, relating to the origin of the *Mahrattas*, is to be found in the IXth Volume, Page 233.—Page 99, last line but one from the bottom, for *Abraia*—read, *Arabia*.—Page 152, line 6th from the bottom, for *m God*—read, *God*.

I TAKE this opportunity to correct two passages in former Essays; one in the IVth Vol. of the *Asiatic Researches*, p. 382:—and the second in the first part of my Essay on the Sacred Isles in the West, p. 302.

In the latter, I said that the famous *Pa'a'n-rui* went no further than *El-Calif* and *Baharein*, in his way to *Egypt*. But I was mistaken; for he even attempted to go up the *Tigris*, and went even as far as *Moc'ha*.

In the former, I asserted that by the *Surya-muchhi-ganga*, *Pa'a'n-rui* meant the *Kolga*; but I was equally mistaken; for, from his narrative, he certainly understood the *Shat-el-Arab*, or the united stream of the *Tigris* and *Euphrates*.

I seldom saw *Pa'a'n-rui*, and he hardly condescended to answer my inquiries: hence the information which he communicated, was vague and desultory. I did not advert then to what Mr. DUNCAN has said on the subject in the Vth Vol. of the *Asiatic Researches*.

F. WILFORD.

BANARAS, Feb. 20th, 1808.

GENERAL PLAN OF THE TRIANGLES

